

8-499

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## SEARCH REQUEST FORM

Requester's Full Name: SABHA GAZI Examiner #: 74141 Date: 8/10/06  
Art Unit: 1616 Phone Number: 2-0622 Serial Number: 10/752,657  
Location (Bldg/Room#): 4A45 (Mailbox #): 4C70 Results Format Preferred (circle): PAPER DISK  
\*\*\*\*\*

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Antiprotzoal Saponins

Inventors (please provide full names): Louis Jules Roger Marie Maes et al

Earliest Priority Date: 12/22/1998 Div. of 6,872,713

### Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

cls 15-21

① Please search for the compounds of 19 & their uses  
② Search for triterpene saponins from family Myrsinaceae, species Maesa balansae.

③ ~~Search for triterpene~~  
Search for cl 15 for triterpene saponins.

Jan  
8/16/06

Please attached sheets

=> fil reg

FILE 'REGISTRY' ENTERED AT 13:54:35 ON 16 AUG 2006

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 AUG 2006 HIGHEST RN 901654-60-2

DICTIONARY FILE UPDATES: 15 AUG 2006 HIGHEST RN 901654-60-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

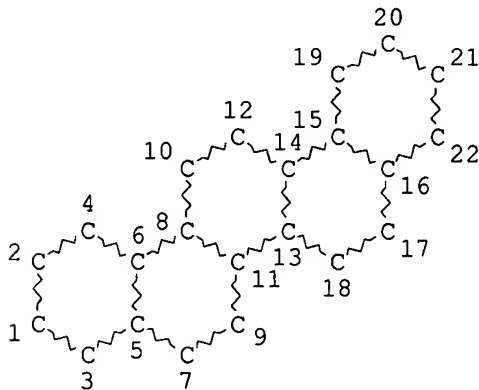
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d sta que l4

L1 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

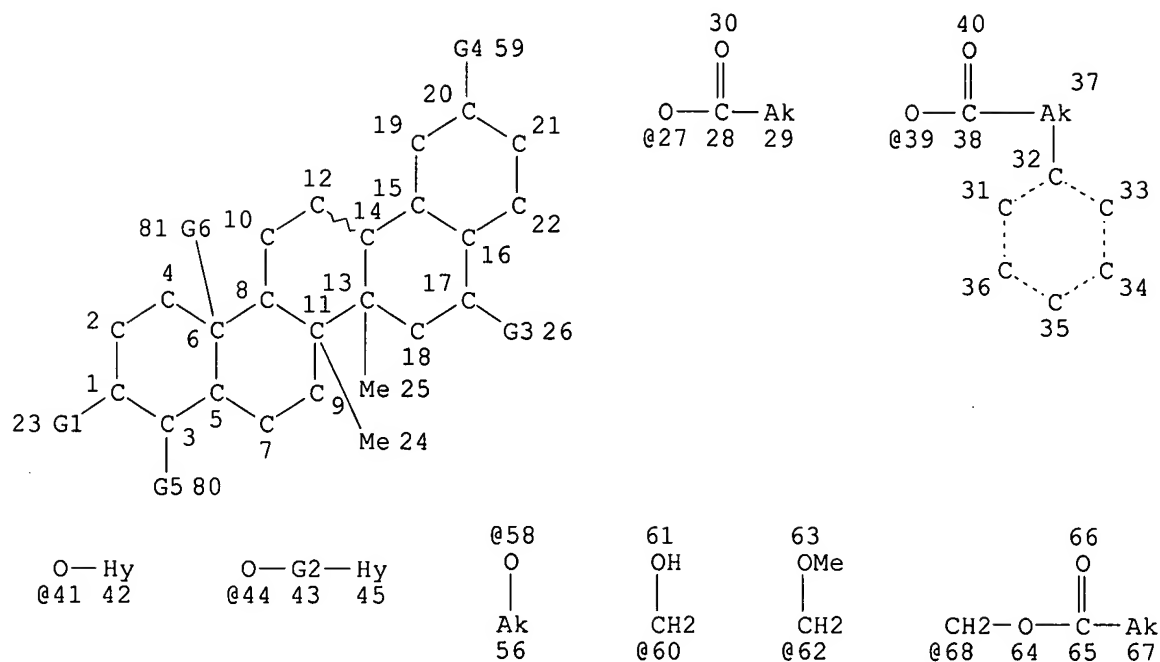
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NUMBER OF NODES IS 22

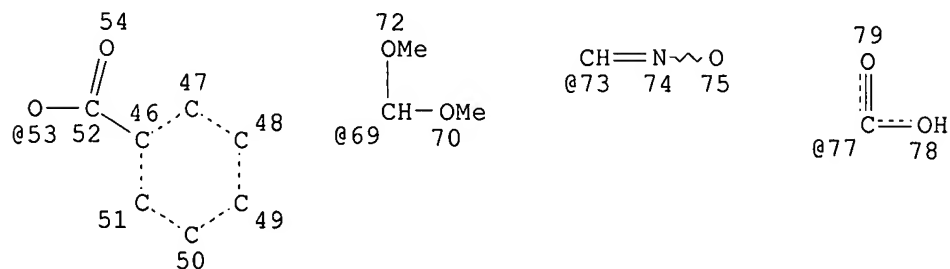
STEREO ATTRIBUTES: NONE

L2 ( 54186)SEA FILE=REGISTRY SSS FUL L1

L3 STR



Page 1-A



Page 2-A

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 REP G2=(0-1) AK  
 VAR G3=OH/58/27/39/53  
 VAR G4=ME/60/62/68/CHO/69/73/77  
 VAR G5=ME/60/62/68/CHO/77  
 VAR G6=ME/60/62/68/CHO/73/77  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M1 O AT 42  
 ECOUNT IS M1 O AT 45

GRAPH ATTRIBUTES:  
 RSPEC 32 47  
 NUMBER OF NODES IS 77

STEREO ATTRIBUTES: NONE  
 L4 2708 SEA FILE=REGISTRY SUB=L2 SSS FUL L3

100.0% PROCESSED 15164 ITERATIONS

2708 ANSWERS

SEARCH TIME: 00.00.01

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DEL HIS

FILE 'REGISTRY' ENTERED AT 13:20:50 ON 16 AUG 2006  
ACT QAZI752/A

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L5          69 S E3,E13-E15
          E GERMONPREZ/AU
L6          8 S E4,E5
          E VAN PUYVELDE/AU
L7          50 S E12-E14
          E DE KIMPE N/AU
L8          442 S E3-E6
          E DEKIMPE N/AU
          E NGOC/AU
          E NGOC N/AU
L9          4 S E4,E5,E14
          E NINH/AU
L10         1 S E20
          E TRAN N/AU
L11         43 S E3,E44
L12         3353 S JANSSEN?/PA,CS
L13         1272 S L4 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
L14         1 S L5-L12 AND L13
          E MYRSINA/CT
          E E4+ALL
L15         14 S E7
L16         1047 S E7+NT
L17         63 S E157+NT
L18         8 S E158
L19         10 S (M OR MAESA?) ()BALANS?
          E MYRSINAC?
L20         307 S E1-E28
L21         57 S L13 AND L15-L20
          E TRITERP/CT
L22         10764 S E8,E43,E82-E90
L23         828 S E104
          E E8+ALL
L24         11571 S E10+OLD
          E E8+ALL
L25         25874 S E8+OLD
L26         8782 S E120,E136
L27         59 S L15-L20 AND L22-L26
L28         109 S L15-L20 AND ?TRITERP?
L29         74 S L27,L28 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
L30         25 S L29 AND (MAES? OR MYRSIN?)

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jan delaval - 16 august 2006

L31 7 S L30 AND MYRSIN?/CT  
L32 8 S L30 AND MAES?/CT  
L33 14 S L31,L32  
L34 11 S L30 NOT L33  
L35 3 S (104:165407 OR 89:56465 OR 44:10525)/DN  
L36 3 S L35 AND L15-L33  
L37 16 S L33,L36  
L38 49 S L29 NOT L30-L37  
L39 11 S L27 NOT L29-L38  
E LEISHMAN/CT  
L40 6636 S E4+OLD,NT  
L41 108 S E81+OLD,NT OR E8+OLD,NT OR E88  
E LEISHM  
L42 8963 S E2 OR LEISHM?  
L43 2 S L13 AND L40-L42  
L44 17 S L37,L14,L43  
L45 17 S L44 AND L5-L44  
SEL HIT RN

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L46 41 S E1-E41  
SEL RN L46 7 8 10 19-21 25 28-31  
L47 30 S L46 NOT E42-E52

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L48 347 S L47  
L49 299 S L48 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)  
L50 1 S L49 AND L5-L12  
L51 40 S L48 AND L15-L20  
L52 9 S L48 AND L40-L42  
SEL DN AN L45  
L53 17 S E53-E103  
L54 9 S L53 AND L49-L52  
L55 11 S L35,L36,L54  
L56 19 S L47 (L) (BAC OR THU OR PAC OR PKT OR DMA OR COS)/RL AND L49  
L57 52 S L49 AND (PHARMACEUT? OR PHARMACOL? OR PATHOL? OR COSMETIC?)/S  
L58 3 S L49 AND (BIOMOL? OR IMMUN?)/SC,SX  
L59 3 S L55 AND L56-L58  
L60 11 S L55,L59  
L61 53 S L56-L58 NOT L60  
L62 6 S L61 AND P/DT  
L63 17 S L60,L62  
L64 47 S L61 NOT L63

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=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 13:54:47 ON 16 AUG 2006

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FILE COVERS 1907 - 16 Aug 2006 VOL 145 ISS 8  
FILE LAST UPDATED: 15 Aug 2006 (20060815/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l63 bib abs hitind hitstr retable tot

L63 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN  
AN 2000:456899 HCAPLUS  
DN 133:71516  
TI Isolation of triterpene saponins from *Myrsinaceae* for treating leishmaniases  
IN Maes, Louis Jules Roger Marie; Germonprez, Nils Albert Gilbert; Van Puyvelde, Luc Emiel Mathilde; Van Tri, Mai; Ngoc Ninh, Tran; De Kimpe, Norbert G. M.  
PA Janssen Pharmaceutica N.V., Belg.  
SO PCT Int. Appl., 28 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO.   | DATE         |
|------|--|------|----------|-------------------|--------------|
| PI   | WO 2000038700  | A1   | 20000706 | WO 1999-EP10177   | 19991215 <-- |
|      | W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW  |      |          |                   |              |
|      | RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG   |      |          |                   |              |
|      | BR 9916422   | A    | 20011002 | BR 1999-16422     | 19991215 <-- |
|      | EP 1140127   | A1   | 20011010 | EP 1999-965511    | 19991215 <-- |
|      | EP 1140127   | B1   | 20040616 |                   |              |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO  |      |          |                   |              |
|      | TR 200101824   | T2   | 20011121 | TR 2001-200101824 | 19991215 <-- |
|      | JP 2003521463  | T2   | 20030715 | JP 2000-590652    | 19991215 <-- |
|      | AU 768712  | B2   | 20040108 | AU 2000-21002     | 19991215 <-- |
|      | AT 269097  | E    | 20040715 | AT 1999-965511    | 19991215 <-- |
|      | ES 2224739   | T3   | 20050301 | ES 1999-965511    | 19991215 <-- |
|      | US 6872713   | B1   | 20050329 | US 2001-868755    | 20010912     |
|      | US 2004138151  | A1   | 20040715 | US 2004-752057    | 20040106 <-- |
| PRAI | EP 1998-204409   | A    | 19981222 | <--               |              |
|      | WO 1999-EP10177  | W    | 19991215 |                   |              |
|      | US 2001-868755   | A3   | 20010912 |                   |              |
| OS   | MARPAT 133:71516   |      |          |                   |              |
| AB   | Triterpene saponins (I), a stereoisomeric form, or a pharmaceutically acceptable addition salt thereof are claimed where R1 = H, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, (CO)C2-5 alkenyl substituted with Ph, a monosaccharide group, or an oligosaccharide group; R2, R3 = H, OH, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, O(CO)C6H5, or (CO)C2-5 alkenyl substituted with Ph; R4 = H, C1-6 alkyl, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, O(CO)C6H5, or (CO)C2-5 |      |          |                   |              |

alkenyl substituted with Ph; R5 = CH3, CH2OH, CH2OCH3, CH2OC(O)CH3, CHO, COOH; or R5 and R2 form a divalent radical of formula C(O)O; R6 and R7 together are H, a bond; or R5 and R6 form a divalent radical of formula CH2O, CH(OR13)O, or C(O)O where R13 = H, C1-6 alkyl or (CO)C1-5 alkyl; R8 $\alpha$ , R8 $\beta$  = CH3, CH2OH, CH2OCH3, CH2OC(O)C1-5 alkyl, CHO, CH(CH3)2, CHNOH, COOH; or R8 $\beta$  and R3 together = C(O)O; or R8 $\beta$  and R5 together = CH2OCHOH; R9, R10 = CH3, CH2OH, CH2OCH3, CH2OC(O)C1-5 alkyl, CHO, COOH; R11 = H, OH, OC(O)C1-5 alkyl; or R10 and R11 together = CH2O; and R12 = CH3, CH2OH, CH2OCH3, CH2OC(O)CH3, CHO, CHNOH, COOH.

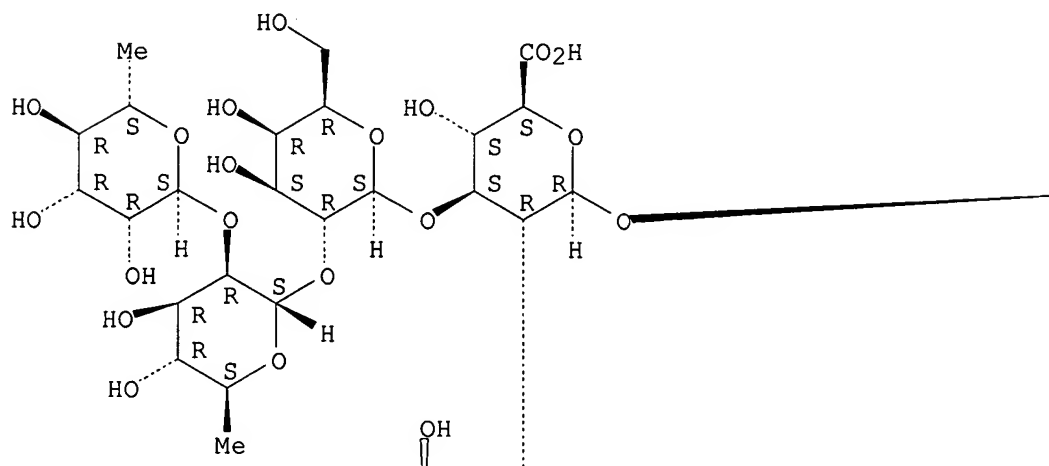
Members of I are isolated from plants of the **Myrsinaceae** family and are useful for decreasing the infectiousness of and reducing the mortality associated with protozoan parasites of the genus **Leishmania** which are responsible for a group of conditions known as **leishmaniases**.

- IC ICM A61K0035-78
- ICS C07C0069-00; C07H0017-08
- CC 11-1 (Plant Biochemistry)
- Section cross-reference(s): 1, 63
- ST saponin triterpene **Myrsinaceae** treatment **leishmaniase**;  
**Leishmania** infection treatment triterpene saponin
- IT Alcohols, uses
- RL: NUU (Other use, unclassified); USES (Uses)  
(extraction solvent; isolation of triterpene saponins from  
**Myrsinaceae** for treating **leishmaniases**)
- IT **Leishmania**  
**Myrsinaceae**  
(isolation of triterpene saponins from **Myrsinaceae** for  
treating **leishmaniases**)
- IT **Maesa balansae**  
(triterpene saponins from; isolation of triterpene saponins from  
**Myrsinaceae** for treating **leishmaniases**)
- IT Saponins
- RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(triterpenoid; isolation of triterpene saponins from  
**Myrsinaceae** for treating **leishmaniases**)
- IT Solvent extraction  
(with alcs.; isolation of triterpene saponins from **Myrsinaceae**  
for treating **leishmaniases**)
- IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 67-63-0, Isopropanol,  
uses 75-05-8, Acetonitrile, uses 35296-72-1, Butanol
- RL: NUU (Other use, unclassified); USES (Uses)  
(extraction solvent; isolation of triterpene saponins from  
**Myrsinaceae** for treating **leishmaniases**)
- IT 278792-43-1P 278792-44-2P 278792-45-3P  
278793-59-2P 278793-60-5P 278793-61-6P
- RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(isolation of triterpene saponins from **Myrsinaceae** for  
treating **leishmaniases**)
- IT 278792-43-1P 278792-44-2P 278792-45-3P  
278793-59-2P 278793-60-5P 278793-61-6P
- RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(isolation of triterpene saponins from **Myrsinaceae** for  
treating **leishmaniases**)
- RN 278792-43-1 HCAPLUS
- CN  $\beta$ -D-Glucopyranosiduronic acid, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ ,  
28S)-21-(benzoyloxy)-13,28-epoxy-16,28-dihydroxy-22-[[[(2Z)-1-oxo-3-phenyl-  
2-propenyl]oxy]oleanan-3-yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-

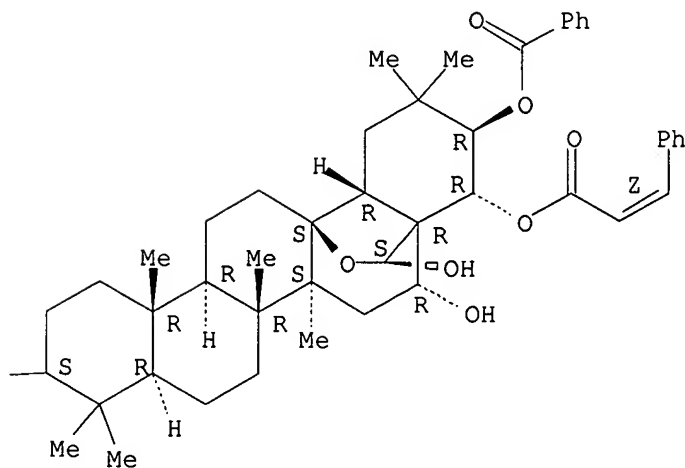
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Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.

PAGE 1-A

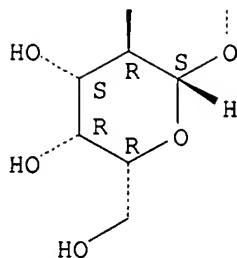


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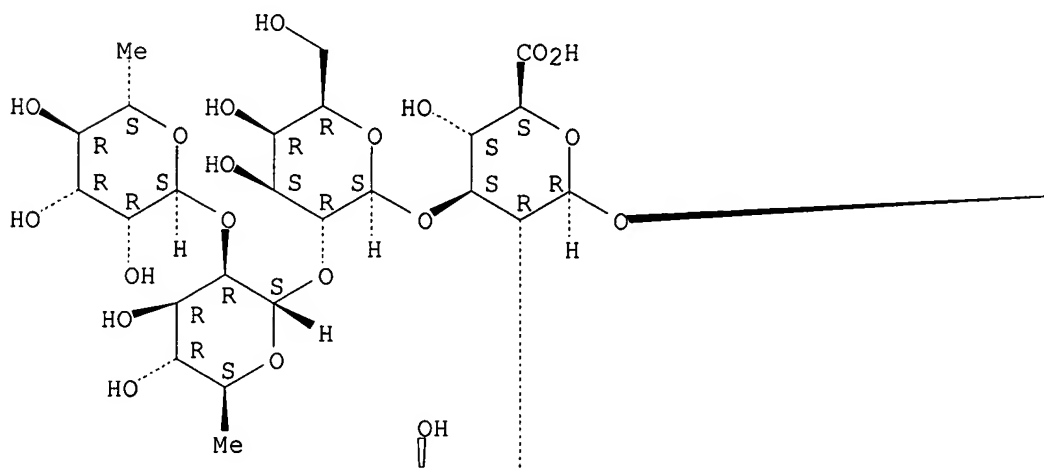
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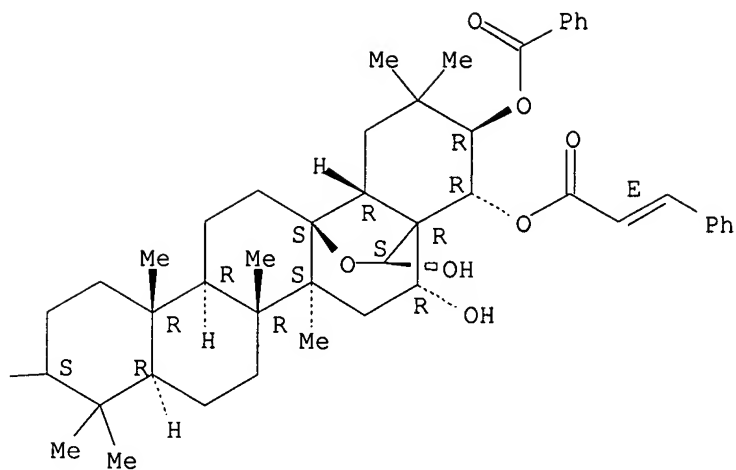
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 2-propenyl]oxy]oleanan-3-yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-  
 (1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-  
 galactopyranosyl-(1 $\rightarrow$ 3)-O-[ $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 2)]-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.

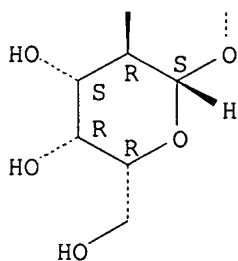
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PAGE 1-B



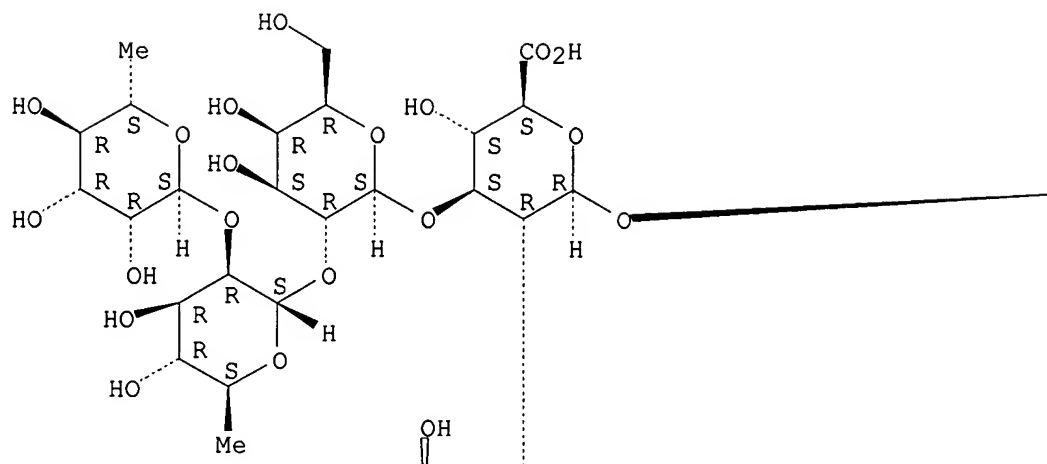
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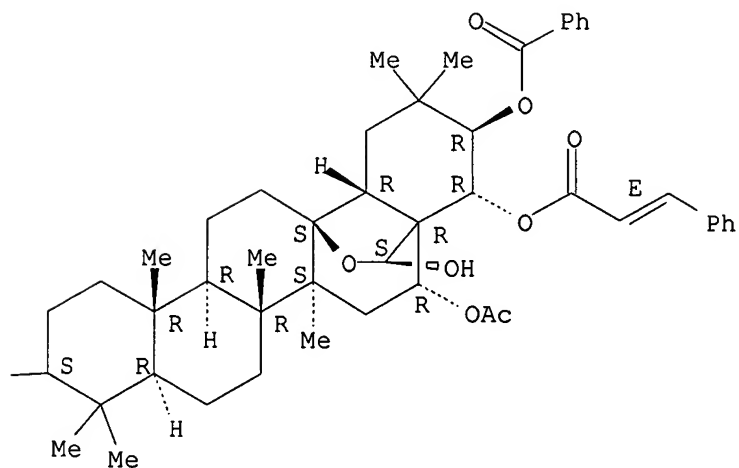
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 3-phenyl-2-propenyl]oxy]oleanan-3-yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-  
 (1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-  
 galactopyranosyl-(1 $\rightarrow$ 3)-O-[ $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 2)]-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.

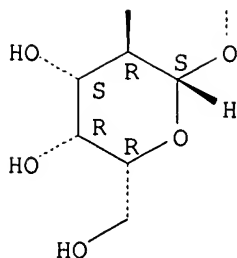
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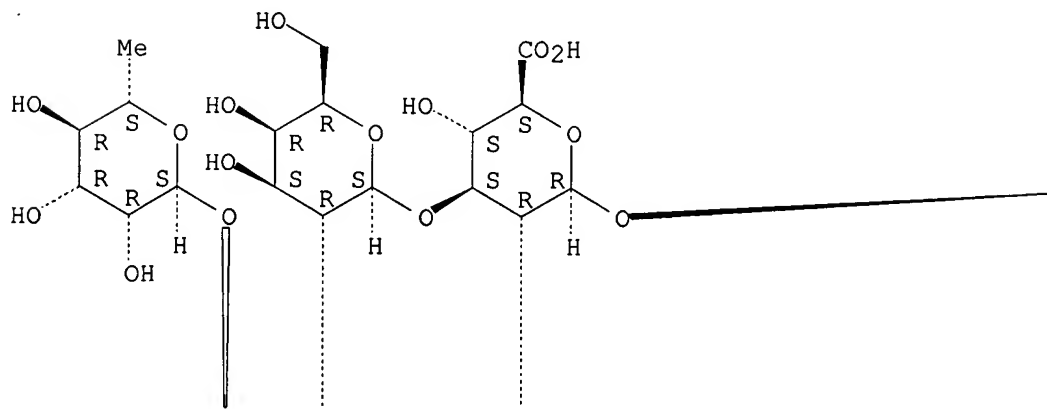
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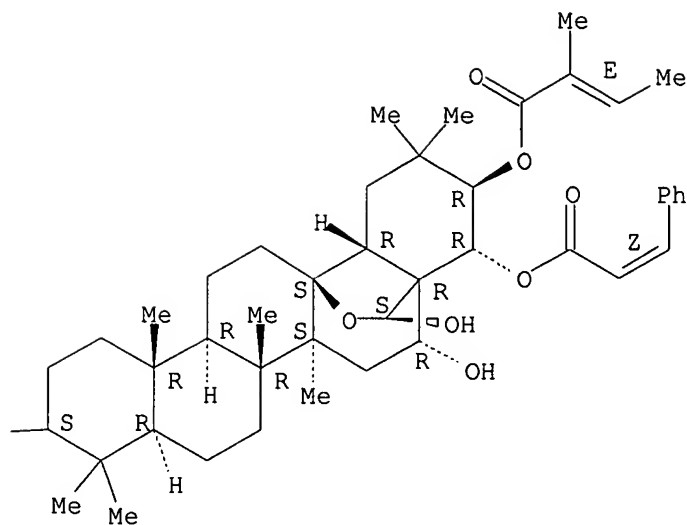
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 22-[[ (2Z)-1-oxo-3-phenyl-2-propenyl]oxy]oleanan-3-yl O-6-deoxy- $\alpha$ -L-  
 mannopyranosyl-(1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-mannopyranosyl-  
 (1 $\rightarrow$ 2)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)-O-[ $\beta$ -D-  
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Absolute stereochemistry.  
 Double bond geometry as shown.

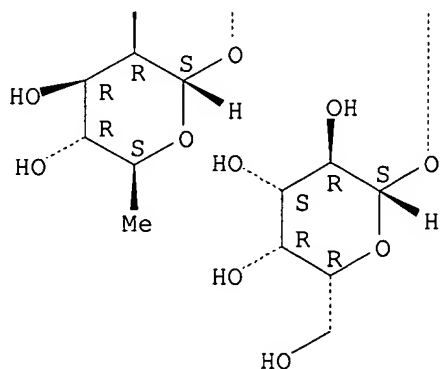
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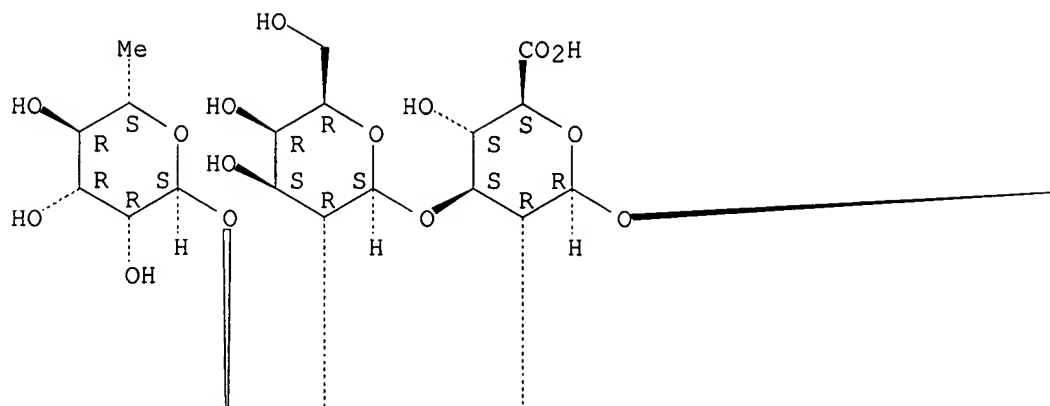
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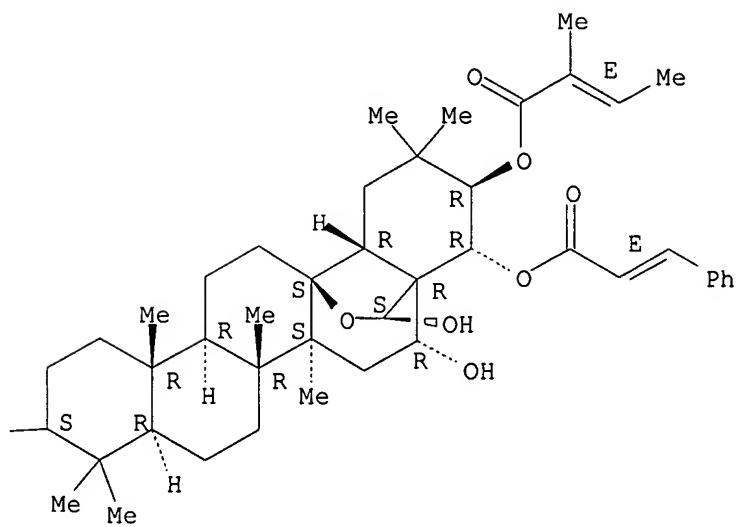
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 22-[[ (2E)-1-oxo-3-phenyl-2-propenyl]oxy]oleanan-3-yl O-6-deoxy- $\alpha$ -L-  
 mannopyranosyl-(1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-mannopyranosyl-  
 (1 $\rightarrow$ 2)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)-O-[ $\beta$ -D-  
 galactopyranosyl-(1 $\rightarrow$ 2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

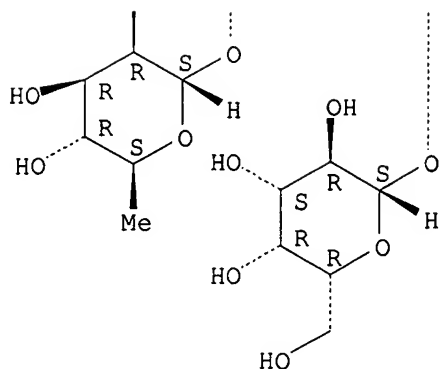
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PAGE 2-A

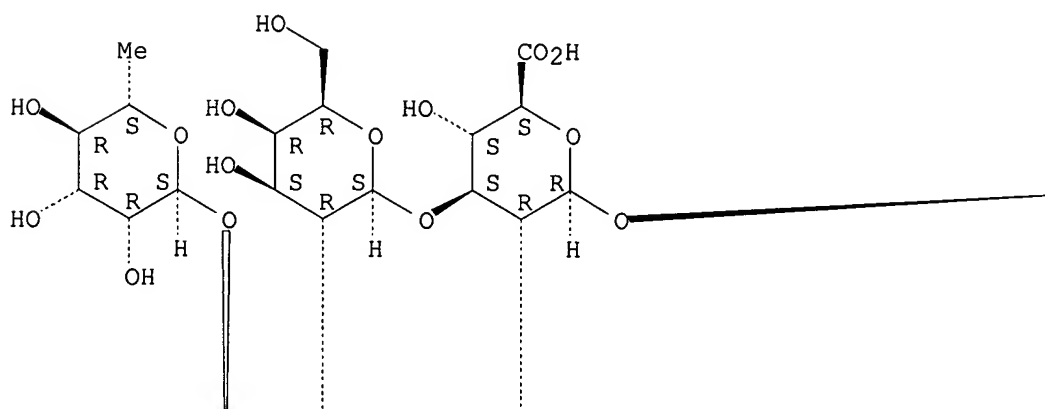


RN 278793-61-6 HCAPLUS

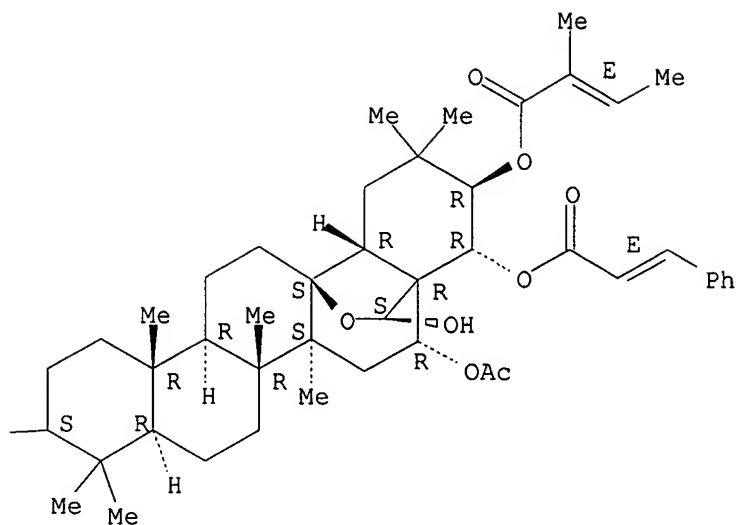
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 28S)-16-(acetyloxy)-13,28-epoxy-28-hydroxy-21-[[ (2E)-2-methyl-1-oxo-2-  
 butenyl]oxy]-22-[[ (2E)-1-oxo-3-phenyl-2-propenyl]oxy]oleanan-3-yl  
 O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-  
 mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)-O-  
 [ $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

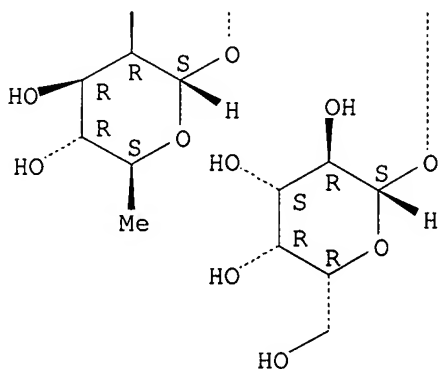
PAGE 1-A



PAGE 1-B



PAGE 2-A



## RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Apers, S                   | 1998          | 18           | 737         | JOURNAL OF PHARMACEU     | HCAPLUS            |
| Jean, B                    | 1996          | 41           | 269         | PHYTOCHEMISTRY           |                    |
| Sindambiwe, J              | 1998          | 61           | 585         | JOURNAL OF NATURAL P     | HCAPLUS            |

L63 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2000:454238 HCAPLUS  
 DN 133:88233  
 TI Inhibitors of leaderless protein export  
 IN Florkiewicz, Robert Z.; Baird, Andrew  
 PA Ciblex Corporation, USA  
 SO U.S., 64 pp., Cont.-in-part of U.S. Ser. No. 807,014.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 3





|             |      |     |       |                      |         |
|-------------|------|-----|-------|----------------------|---------|
| Anon        | 1992 |     |       | WO 9216226           | HCAPLUS |
| Anon        | 1993 |     |       | WO 9309135           | HCAPLUS |
| Anon        | 1996 |     |       | WO 9604921           | HCAPLUS |
| Anon        | 1997 |     |       | WO 9728808           | HCAPLUS |
| Barinaga    | 1996 | 272 | 1261  | Science              | HCAPLUS |
| Bost        | 1995 | 14  | 4412  | The EMBO Journal     | HCAPLUS |
| Detomaso    | 1994 | 127 | 55    | The Journal of Cell  | HCAPLUS |
| Florkiewicz | 1999 |     |       | US 5891855           | HCAPLUS |
| Florkiewicz | 1997 | 11  | A1066 | FASEB Journal        |         |
| Florkiewicz | 1995 | 162 | 388   | Journal of Cellular  | HCAPLUS |
| Florkiewicz | 1996 | 7   | 186a  | Molecular Biology of |         |
| Florkiewicz | 1998 | 273 | 544   | The Journal of Biolo | HCAPLUS |
| Goldstein   | 1996 | 1   | 960   | Nature Medicine      |         |
| Hamon       | 1997 | 90  | 2911  | Blood                | HCAPLUS |
| Harlow      | 1988 |     | 421   | Antibodies           |         |
| Jackson     | 1995 | 270 | 33    | The Journal of Biolo | HCAPLUS |
| Jarvis      | 1995 | 92  | 7996  | Proc Natl Acad Sci U | HCAPLUS |
| Jerse       | 1990 | 87  | 7839  | Proc Natl Acad Sci U | HCAPLUS |
| Kaelin      | 1991 | 64  | 521   | Cell                 | HCAPLUS |
| Kenny       | 1995 | 92  | 7991  | Proc Natl Acad Sci U | HCAPLUS |
| Kent        | 1987 | 237 | 901   | Science              | MEDLINE |
| Ku          | 1990 |     |       | US 4975467           | HCAPLUS |
| Levenson    | 1994 | 123 | 1     | Rev Physiol Biochem  | HCAPLUS |
| Lewis       | 1994 | 19  | 119   | TIBS                 | HCAPLUS |
| Matsumori   | 1996 |     |       | US 5545623           | HCAPLUS |
| McDaniel    | 1995 | 92  | 1664  | Proc Natl Acad Sci U | HCAPLUS |
| Mignatti    | 1992 | 151 | 81    | Journal of Cellular  | HCAPLUS |
| Neyfakh     | 1991 | 88  | 4781  | Proc Natl Acad Sci U | MEDLINE |
| Nilsson     | 1992 | 2   | 569   | Current opinion in s | HCAPLUS |
| Rubartell   | 1992 | 267 | 24161 | The Journal Of Biolo |         |
| Rubartelli  | 1990 | 9   | 1503  | The EMBO Journal     | HCAPLUS |
| Russel      | 1994 | 265 | 612   | Science              | MEDLINE |
| Salmond     | 1993 | 18  | 7     | TIBS                 | HCAPLUS |

L63 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:603240 HCAPLUS

DN 129:225748

TI Inhibitors of leaderless protein export, and therapeutic use thereof

IN Florkiewicz, Robert Z.; Baird, Andrew

PA Ciblex Corp., USA

SO PCT Int. Appl., 117 pp.

CODEN: PIXXD2

DT Patent

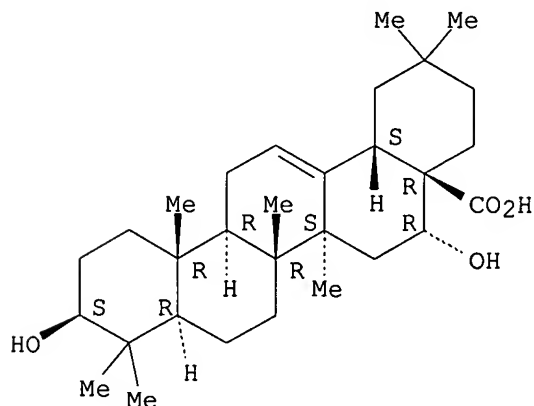
LA English

FAN.CNT 3

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|----|---|------|----------|-----------------|--------------|
| PI | WO 9837880  | A1   | 19980903 | WO 1998-US3689  | 19980225 <-- |
|    | W: AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK,  |      |          |                 |              |
|    | EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP,     |      |          |                 |              |
|    | KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO,     |      |          |                 |              |
|    | NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA,     |      |          |                 |              |
|    | UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM              |      |          |                 |              |
|    | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, |      |          |                 |              |
|    | FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,     |      |          |                 |              |
|    | GA, GN, ML, MR, NE, SN, TD, TG                                      |      |          |                 |              |
|    | CA 2281925  | AA   | 19980903 | CA 1998-2281925 | 19980225 <-- |
|    | AU 9863391  | A1   | 19980918 | AU 1998-63391   | 19980225 <-- |
|    | EP 1011655  | A1   | 20000628 | EP 1998-907634  | 19980225 <-- |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  |      |          |                 |              |

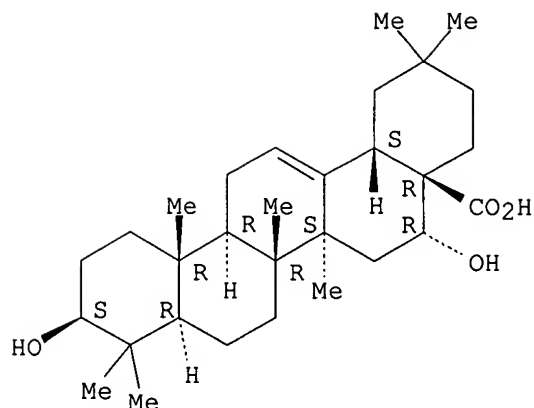
IE, FI  
 JP 2001527390 T2 20011225 JP 1998-537817 19980225 <--  
 MX 9907926 A 20000731 MX 1999-7926 19990826 <--  
 PRAI US 1997-807014 A 19970226 <--  
 WO 1998-US3689 W 19980225 <--  
 AB Methods are provided for inhibiting the export of a leaderless protein from a cell by contacting the cell with a compound that inhibits the binding of the leaderless protein and a transport mol. Leaderless proteins include FGF-1, FGF-2, IL-1 $\alpha$ , IL-1 $\beta$ , CNTF and HIV-tat. These methods are useful in treatment of various conditions, including tumors and diabetes.  
 IC ICM A61K0031-18  
 ICS A61K0031-645; A61K0031-19; A61K0031-165; A61K0031-38; A61K0031-15; A61K0031-52; A61K0031-27; A61K0031-215  
 CC 1-12 (Pharmacology)  
 IT 69-05-6, Atebrine 69-05-6D, Atebrine, derivs. 510-30-5, Echinocystic acid 510-30-5D, Echinocystic acid, derivs. 2143-98-8 2143-98-8D, derivs. 52535-73-6 52535-73-6D, derivs. 127109-37-9 127109-37-9D, derivs. 212624-75-4 212624-75-4D, derivs. 212624-76-5 212624-76-5D, derivs. 212624-78-7 212624-78-7D, derivs. 212624-79-8 212624-79-8D, derivs. 212624-81-2 212624-81-2D, derivs.  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (leaderless protein export inhibitors, and therapeutic use thereof)  
 IT 510-30-5, Echinocystic acid 510-30-5D, Echinocystic acid, derivs.  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (leaderless protein export inhibitors, and therapeutic use thereof)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



## RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Chung, H                   | 1996          |              |             | WO 9604921 A             | HCAPLUS            |
| Florkiewicz, R             | 1997          | 11           | A1066       | FASEB JOURNAL            |                    |
| Florkiewicz, R             | 1998          | 273          | 544         | J BIOL CHEM              | HCAPLUS            |
| Florkiewicz, R             | 1995          | 162          | 388         | J CELL PHYSIOL           | HCAPLUS            |
| Florkiewicz, R             | 1996          | 7            | 186a        | MOLECULAR BIOLOGY OF     |                    |
| Hamon, Y                   | 1997          | 90           | 2911        | BLOOD                    | HCAPLUS            |
| Matsumori, A               | 1996          |              |             | US 5545623 A             | HCAPLUS            |
| The Scripps Research In    | 1997          |              |             | WO 9728808 A             | HCAPLUS            |

L63 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:114372 HCAPLUS

DN 126:222807

TI A triterpenoid saponin from Maesa ramentacea

AU Tuntiwachwuttikul, Pittaya; Pancharoen, Orasa; Mahubusarakam, Wilawan; Wiriyaichitra, Pichaet; Taylor, Walter C.; Bubb, William A.; Towers, G. H. N.

CS Faculty Science, Silpakorn Univ., Nakorn Pathom, 73000, Thailand

SO Phytochemistry (1997), 44(3), 491-495

CODEN: PYTCAS; ISSN: 0031-9422

PB Elsevier

DT Journal

LA English

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The structure of a piscicidal triterpenoid saponin (saponin A) isolated from the leaves of Maesa ramentacea has been shown to be (I: R = angeloyl). Extensive use was made of homo- and heteronuclear 2D NMR techniques.

CC 11-1 (Plant Biochemistry)  
Section cross-reference(s): 30, 33

IT **Maesa ramentacea**  
(triterpenoid saponin from)

IT 13844-01-4P, Barringtogenol C 14694-67-8P,  
Barringtogenol C pentaacetate 92947-99-4P, 21,22-

Diangeloylbarringtogenol C 188294-94-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and properties of)

IT **188294-92-0P**

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
(triterpenoid saponin from *Maesa ramentacea*)

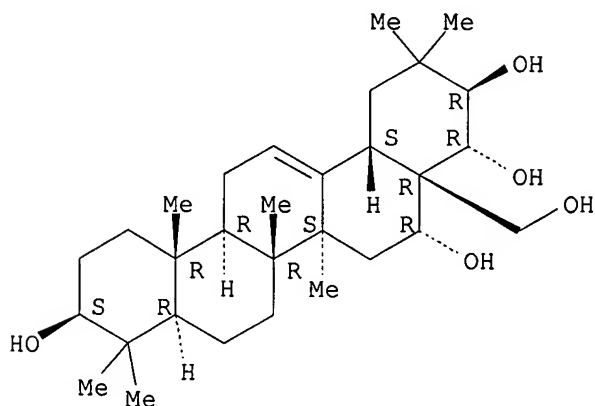
IT **13844-01-4P**, Barringtogenol C **14694-67-8P**,  
Barringtogenol C pentaacetate **92947-99-4P**, 21,22-  
Diangeloylbarringtogenol C

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and properties of)

RN 13844-01-4 HCAPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-  
(9CI) (CA INDEX NAME)

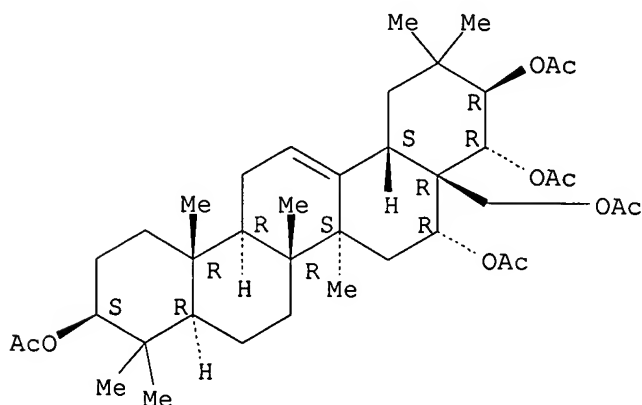
Absolute stereochemistry.



RN 14694-67-8 HCAPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, pentaacetate,  
(3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )- (9CI) (CA INDEX NAME)

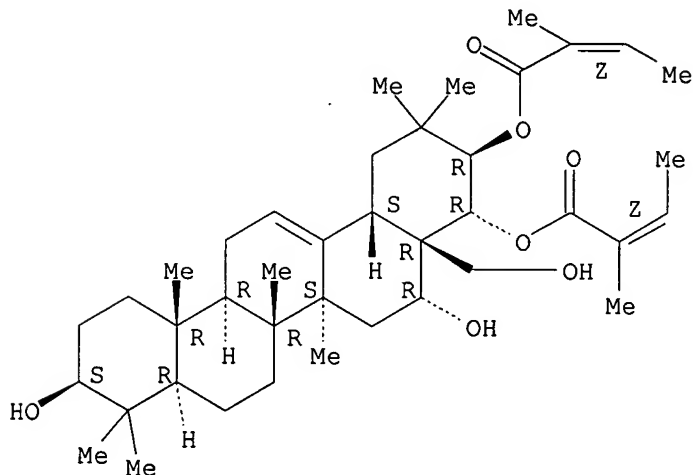
Absolute stereochemistry.



RN 92947-99-4 HCAPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, 21,22-bis[(2Z)-2-methyl-2-butenate],  
(3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.



IT 188294-92-0P

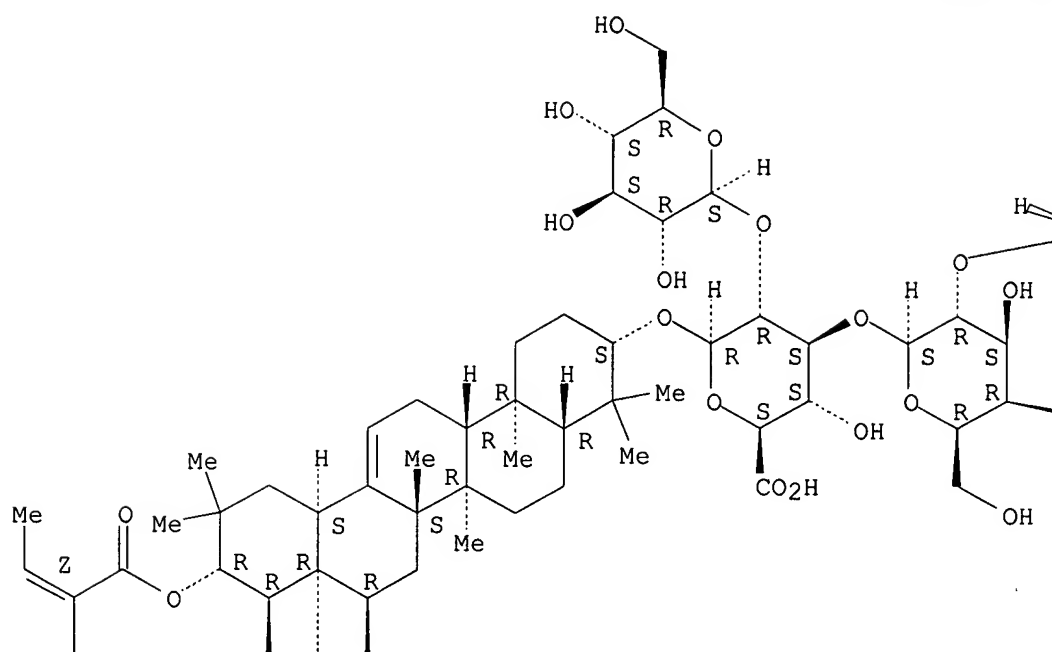
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
(triterpenoid saponin from *Maesa ramentacea*)

RN 188294-92-0 HCAPLUS

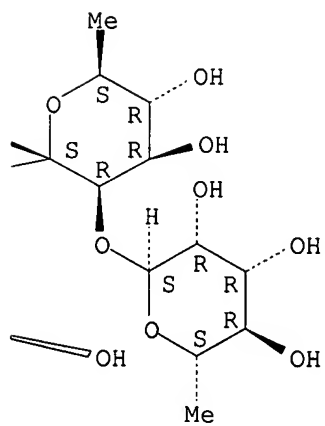
CN  $\beta$ -D-Glucopyranosiduronic acid, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-  
16,28-dihydroxy-21,22-bis[[(2Z)-2-methyl-1-oxo-2-butenyl]oxy]olean-12-en-3-  
yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-  
mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)-O-  
[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.

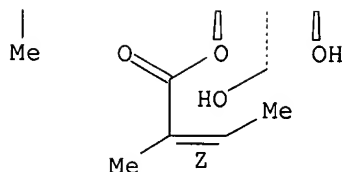
PAGE 1-A



PAGE 1-B



PAGE 2-A



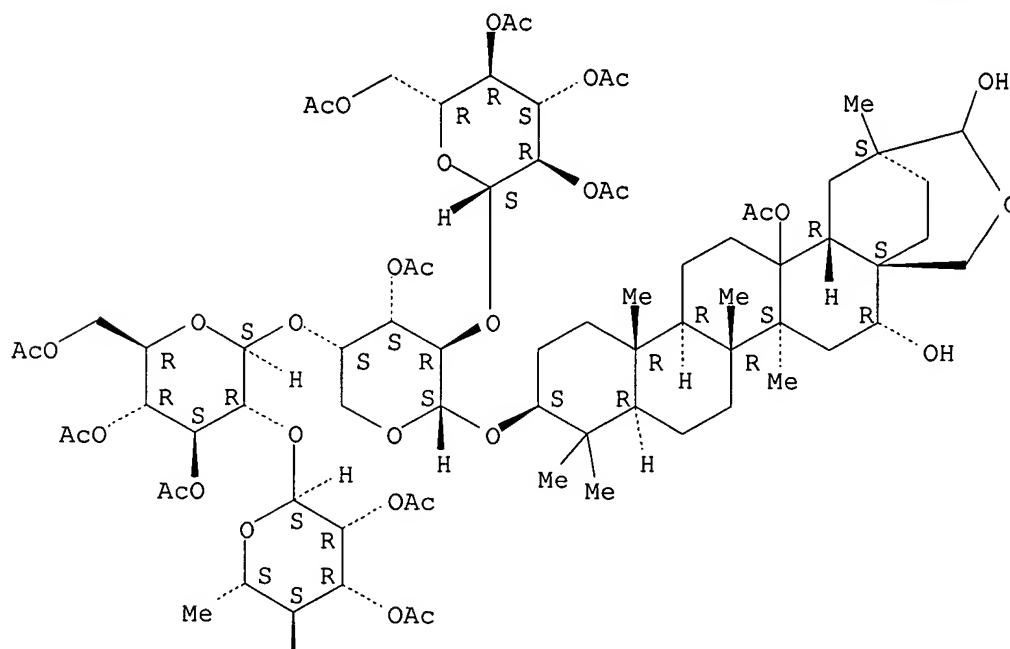
- L63 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:456102 HCAPLUS  
 DN 122:235284  
 TI Triterpene saponins from **Myrsine** pellucida  
 AU Lavaud, Catherine; Massiot, Georges; Barrera, Jose Bravo; Moretti, Christian; Le Men-Olivier, Louisette  
 CS Laboratorio de Farmacognosia, ORSTOM-IBBA, La Paz, CP 717, Bolivia  
 SO Phytochemistry (1994), 37(6), 1671-7  
 CODEN: PYTCAS; ISSN: 0031-9422  
 PB Elsevier  
 DT Journal  
 LA English  
 AB Quercitol, five saponins and 3-O-(6'-O-palmitoyl)  $\beta$ -D-glucopyranosyl stigmasterol were isolated from the stem bark of **Myrsine** pellucida. These compds. are described for the first time in this plant and their structures were determined using a combination of  $^1\text{H}$  and  $^{13}\text{C}$  NMR, and mass spectroscopy. The two saponins are new compds., 3-O-( $\alpha$ -L-rhamnopyranosyl (1  $\rightarrow$  2)  $\beta$ -D-glucopyranosyl (1  $\rightarrow$  4)  $\alpha$ -L-arabinopyranosyl) cyclamiretin A and 3-O-( $\beta$ -D-xylopyranosyl (1  $\rightarrow$  2)  $\beta$ -D-glucopyranosyl (1  $\rightarrow$  4) [ $\beta$ -D-glucopyranosyl (1  $\rightarrow$  2)]  $\alpha$ -L-arabinopyranosyl) cyclamiretin D.  
 CC 11-1 (Plant Biochemistry)  
 Section cross-reference(s): 30  
 ST triterpene saponin **Myrsine**  
 IT **Myrsine** pellucida  
     (triterpene saponins from **Myrsine** pellucida)  
 IT Triterpenes and Triterpenoids  
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
     (saponins, triterpene saponins from **Myrsine** pellucida)  
 IT Saponins  
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
     (triterpenoid, triterpene saponins from **Myrsine** pellucida)  
 IT 162229-90-5  
     RL: PRP (Properties)  
     (structure and NMR spectra of)  
 IT 23643-61-0, Saxifragifolin B 59252-96-9 62076-18-0  
     112766-96-8, Ardisiacrispin B 113558-16-0, Primulanin  
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
     (triterpene saponins from **Myrsine** pellucida)  
 IT 162229-91-6P 162229-92-7P  
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
     (triterpene saponins from **Myrsine** pellucida)



IT 162229-90-5  
 RL: PRP (Properties)  
 (structure and NMR spectra of)  
 RN 162229-90-5 HCAPLUS  
 CN Oleanane-13,16,29-triol, 28,29-epoxy-3-[(O-2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O-[O-2,3,4-tri-O-acetyl-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-3,4,6-tri-O-acetyl- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)]-3-O-acetyl- $\alpha$ -L-arabinopyranosyl)oxy]-, (3 $\beta$ ,13 $\xi$ ,16 $\alpha$ ,20 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A

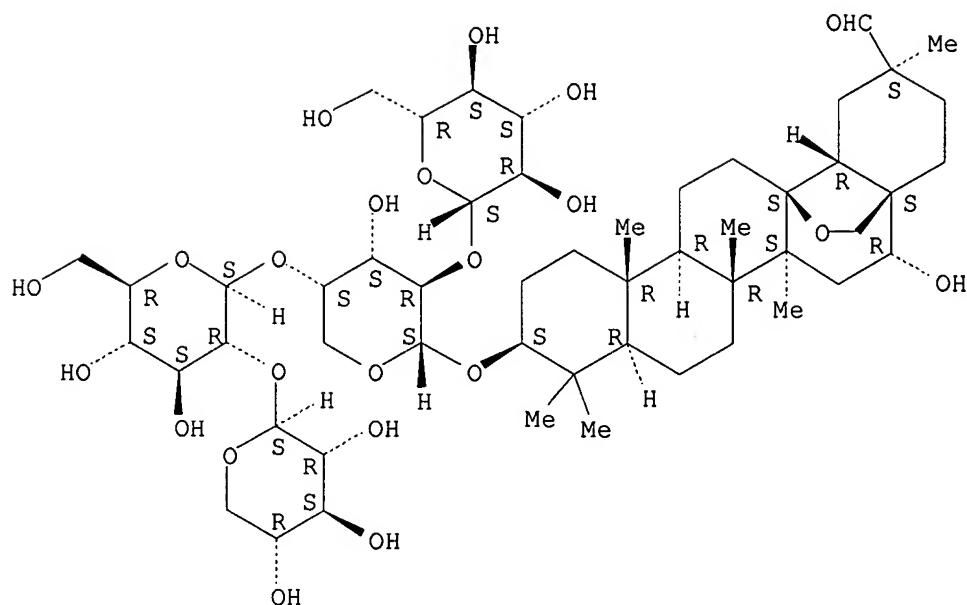


PAGE 2-A



IT 23643-61-0, Saxifragifolin B 112766-96-8, Ardisiacrispin  
 B 113558-16-0, Primulanin  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified);  
 BIOL (Biological study); OCCU (Occurrence)  
 (triterpene saponins from *Myrsine pellucida*)  
 RN 23643-61-0 HCAPLUS  
 CN Oleanan-29-al, 13,28-epoxy-3-[(O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O-[O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)]- $\alpha$ -L-arabinopyranosyl)oxy]-16-hydroxy-, (3 $\beta$ ,16 $\alpha$ ,20 $\beta$ )- (9CI) (CA INDEX NAME)

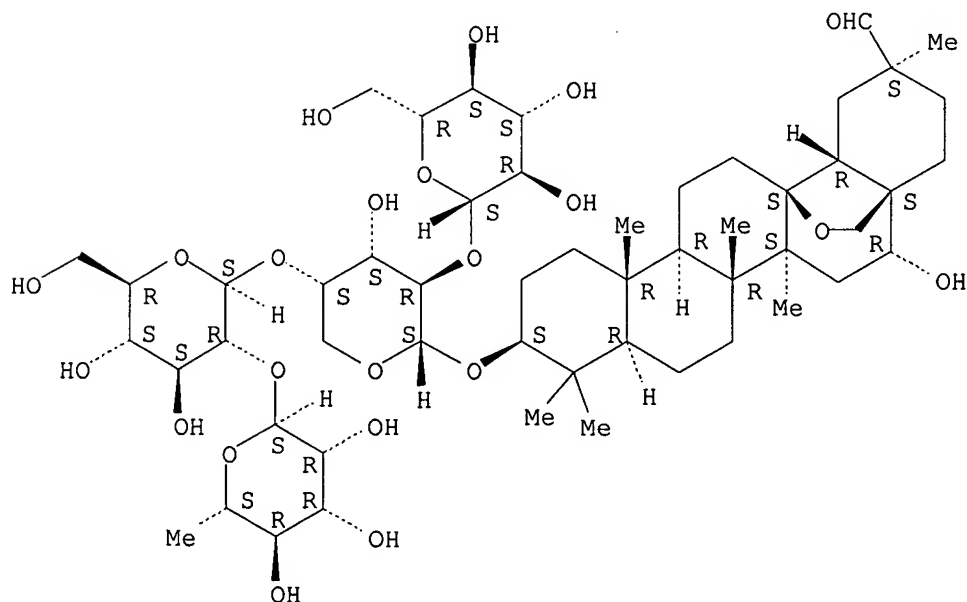
Absolute stereochemistry.



RN 112766-96-8 HCAPLUS

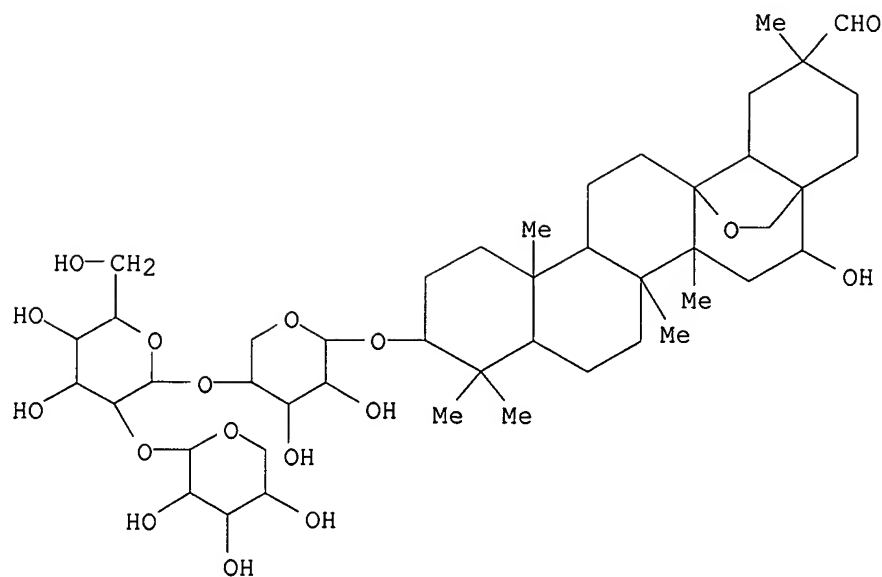
CN Oleanan-29-al, 3-[(O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 $\beta$ ,16 $\alpha$ ,20 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 113558-16-0 HCAPLUS

CN Oleanan-29-al, 13,28-epoxy-16-hydroxy-3-[(O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -L-arabinopyranosyl)oxy]-, (3 $\beta$ ,16 $\alpha$ ,20 $\beta$ )- (9CI) (CA INDEX NAME)



IT 162229-91-6P

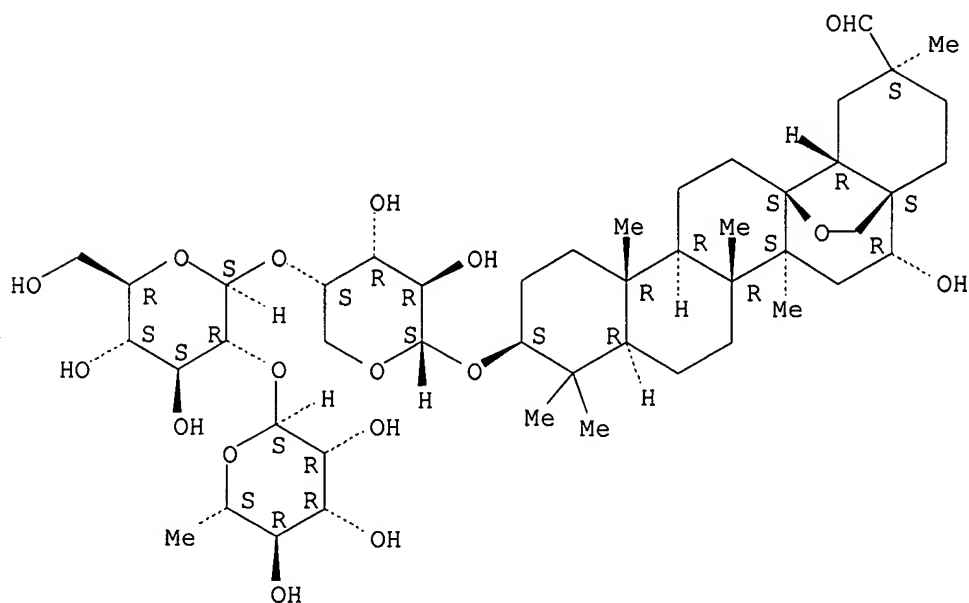
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(triterpene saponins from *Myrsine pellucida*)

RN 162229-91-6 HCAPLUS

CN Oleanan-29-al, 3-[(O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 $\beta$ ,16 $\alpha$ ,20 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



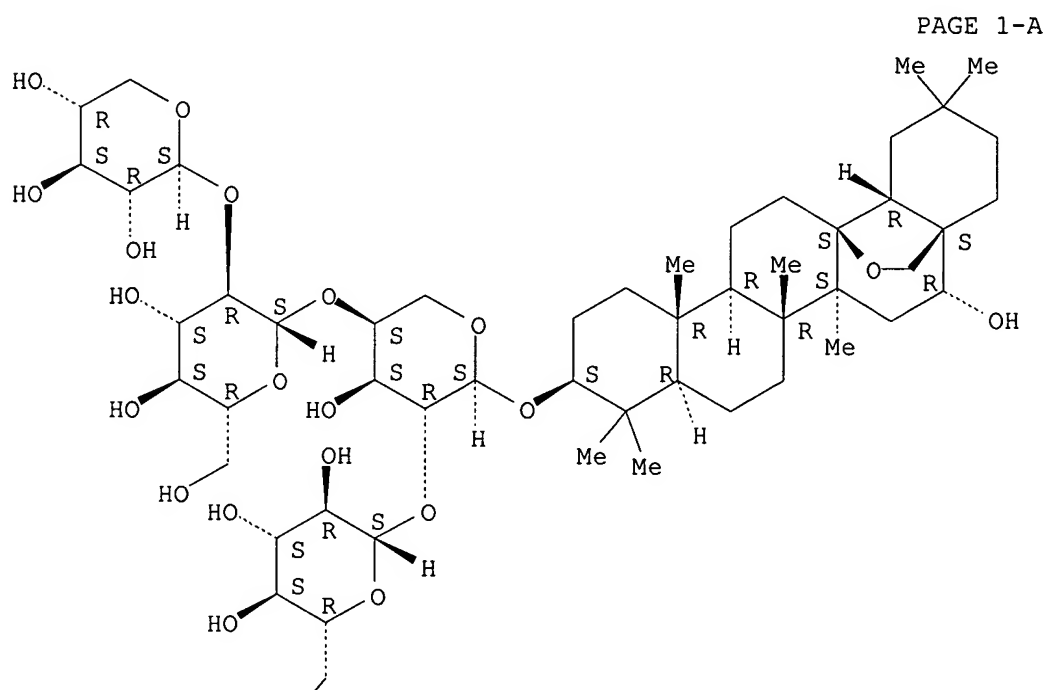
L63 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

jan delaval - 16 august 2006

AN 1995:228133 HCAPLUS  
 DN 122:76634  
 TI Cytotoxic saponins from New Zealand **Myrsine** species  
 AU Bloor, Stephen J.; Qi, Lu  
 CS Ind. Res. Ltd., Lower Hutt, 310, N. Z.  
 SO Journal of Natural Products (1994), 57(10), 1354-60  
 CODEN: JNPRDF; ISSN: 0163-3864  
 PB American Chemical Society  
 DT Journal  
 LA English  
 AB The observed biol. activity in two New Zealand **Myrsine** species has been shown to be due to the presence of triterpene saponins. From **Myrsine** australis, a series of eight oleanane-type saponins was obtained, with six compds. being novel. Also isolated were ardisiacrispin A and ardisiacrispin B. The structures of the new compds. were determined by chemical and spectroscopic techniques. Exts. of **Myrsine** salicina yielded only one saponin, ardisiacrispin A. All of the isolated saponins were shown to be combinations of four oleanane triterpenes bonded to  $\beta$ -D-xylp(1 $\rightarrow$ 2)- $\beta$ -D-glcp(1 $\rightarrow$ 4)-[ $\beta$ -D-glcp(1 $\rightarrow$ 2)]- $\alpha$ -L-arap or this same tetrasaccharide with  $\alpha$ -L-rhap replacing the  $\beta$ -D-xylp unit.  
 CC 11-1 (Plant Biochemistry)  
 Section cross-reference(s): 1, 30, 33  
 ST **Myrsine** triterpene saponin antiviral antitumor activity; cytotoxic triterpene saponin **Myrsine**  
 IT **Myrsine australis**  
     **Myrsine salicina**  
     Virucides and Virustats  
     (cytotoxic saponins from New Zealand **Myrsine** species)  
 IT Neoplasm inhibitors  
     (leukemia, cytotoxic saponins from New Zealand **Myrsine** species)  
 IT Triterpenes and Triterpenoids  
     RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)  
     (saponins, cytotoxic saponins from New Zealand **Myrsine** species)  
 IT Saponins  
     RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)  
     (triterpenoid, cytotoxic saponins from New Zealand **Myrsine** species)  
 IT 126882-54-0P 160517-91-9P 160517-93-1P  
     160517-94-2P 160517-95-3P 160517-96-4P  
     RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)  
     (cytotoxic saponins from New Zealand **Myrsine** species)  
 IT 23643-61-0, Ardisiacrispin A 112766-96-8, Ardisiacrispin B  
     RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(cytotoxic saponins from New Zealand **Myrsine** species)  
 IT 126882-54-0P 160517-91-9P 160517-93-1P  
 160517-94-2P 160517-95-3P 160517-96-4P  
 RL: BAC (Biological activity or effector, except adverse); BOC  
 (Biological occurrence); BSU (Biological study, unclassified); PRP  
 (Properties); PUR (Purification or recovery); THU (Therapeutic  
 use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation);  
 USES (Uses)  
 (cytotoxic saponins from New Zealand **Myrsine** species)  
 RN 126882-54-0 HCAPLUS  
 CN  $\alpha$ -L-Arabinopyranoside, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16-  
 hydroxyoleanan-3-yl O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O-[O- $\beta$ -D-  
 xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)]- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



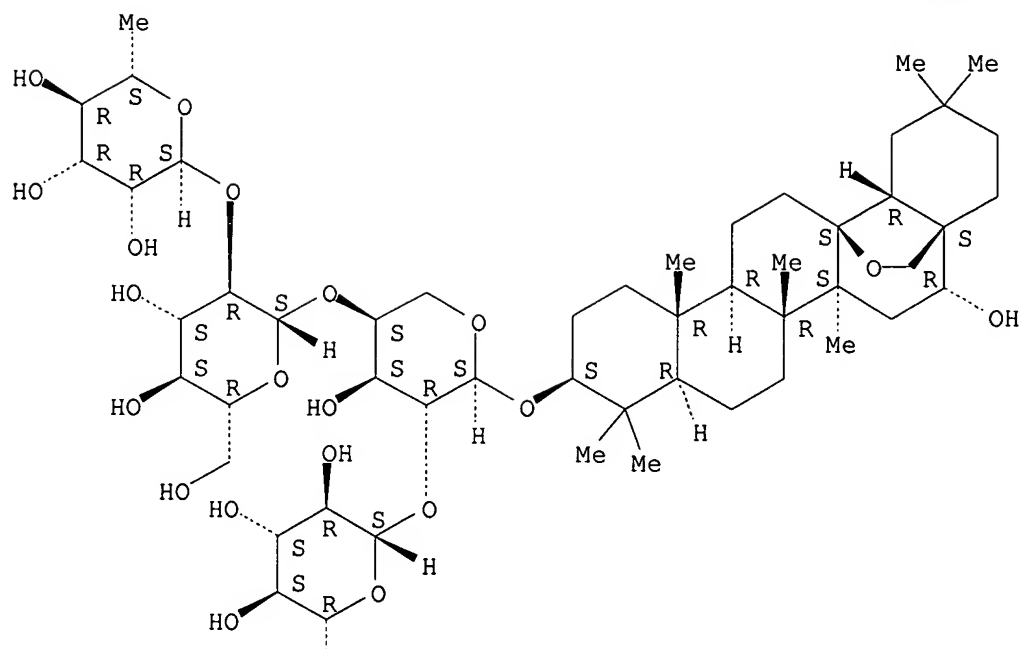
PAGE 2-A



RN 160517-91-9 HCAPLUS  
 CN  $\alpha$ -L-Arabinopyranoside, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16-  
 hydroxyoleanan-3-yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O-  
 $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[ $\beta$ -D-glucopyranosyl-  
 (1 $\rightarrow$ 2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



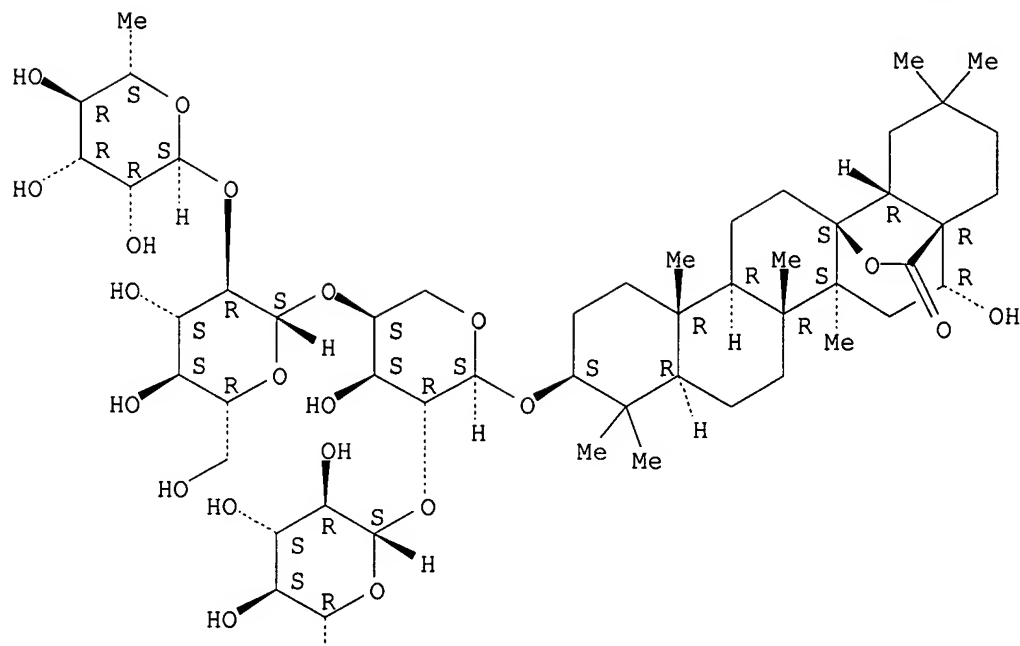
PAGE 2-A



RN 160517-93-1 HCAPLUS  
 CN Oleanan-28-oic acid, 3-[(O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl)oxy]-13,16-dihydroxy-,  
 $\gamma$ -lactone, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A

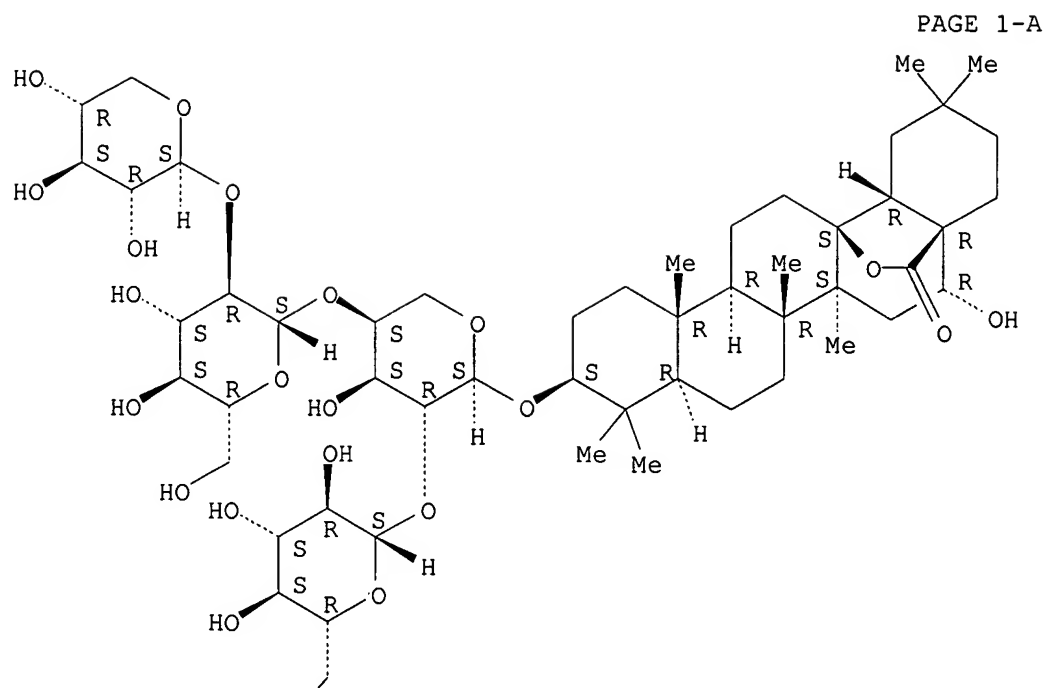


PAGE 2-A



RN 160517-94-2 HCAPLUS  
 CN Oleanan-28-oic acid, 3-[(O-β-D-glucopyranosyl-(1→2)-O-[O-β-D-xylopyranosyl-(1→2)-β-D-glucopyranosyl-(1→4)]-α-L-arabinopyranosyl)oxy]-13,16-dihydroxy-, γ-lactone, (3β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



PAGE 2-A

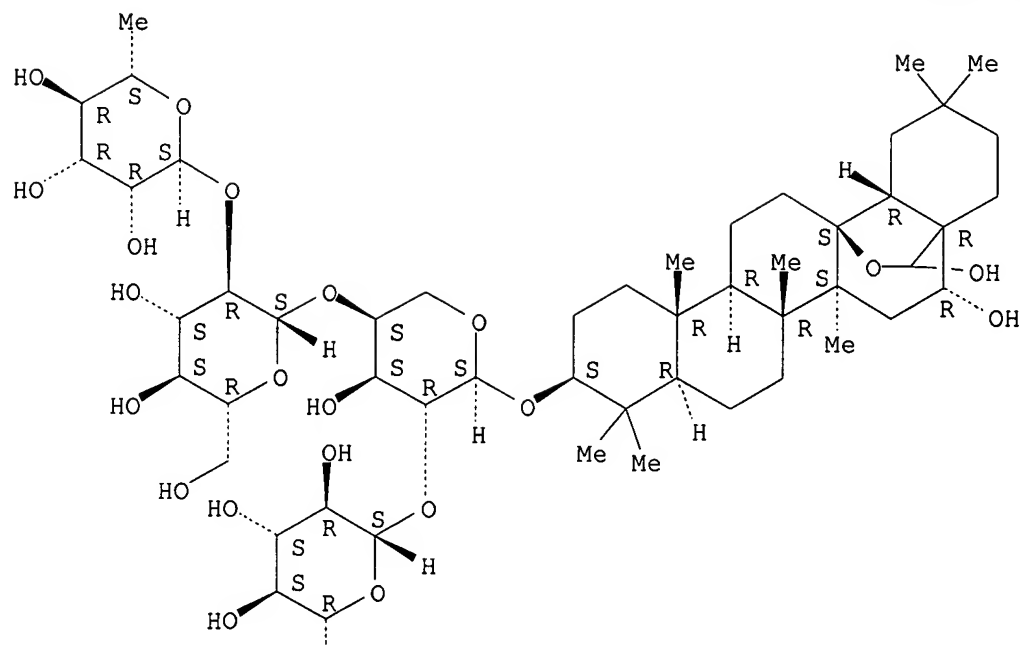


RN 160517-95-3 HCAPLUS  
 CN  $\alpha$ -L-Arabinopyranoside, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16,28-  
 dihydroxyoleanan-3-yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O-  
 $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[ $\beta$ -D-glucopyranosyl-  
 (1 $\rightarrow$ 2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-A

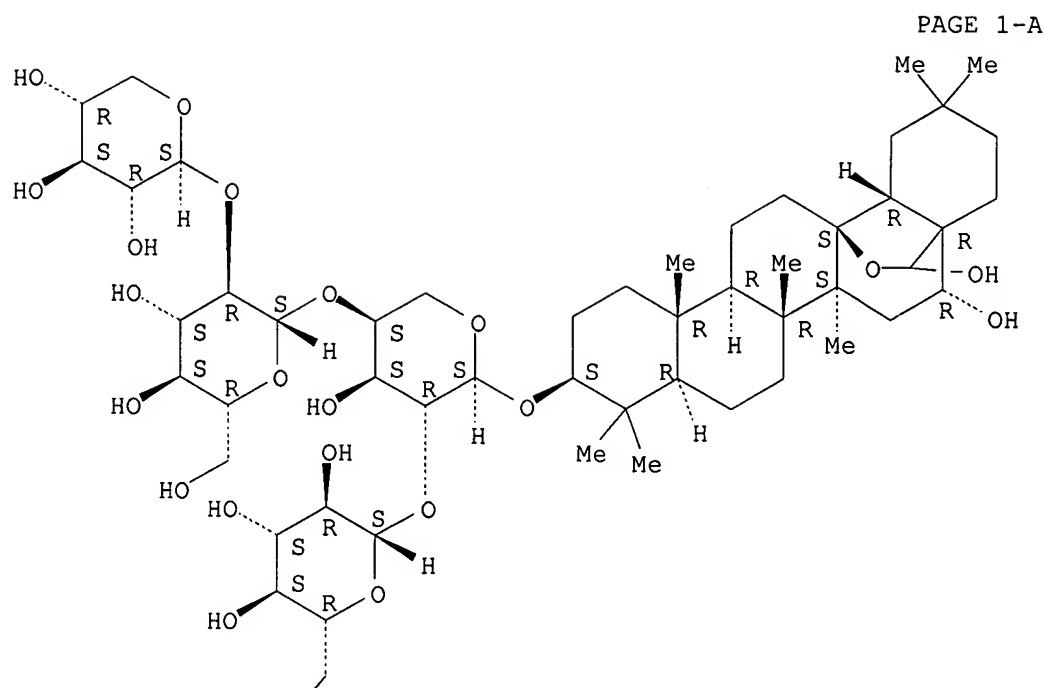


PAGE 2-A



RN 160517-96-4 HCAPLUS  
 CN  $\alpha$ -L-Arabinopyranoside, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16,28-  
 dihydroxyoleanan-3-yl O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O-[O- $\beta$ -D-  
 xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)]- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.



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IT 23643-61-0, Ardisiacrispin A 112766-96-8, Ardisiacrispin

B

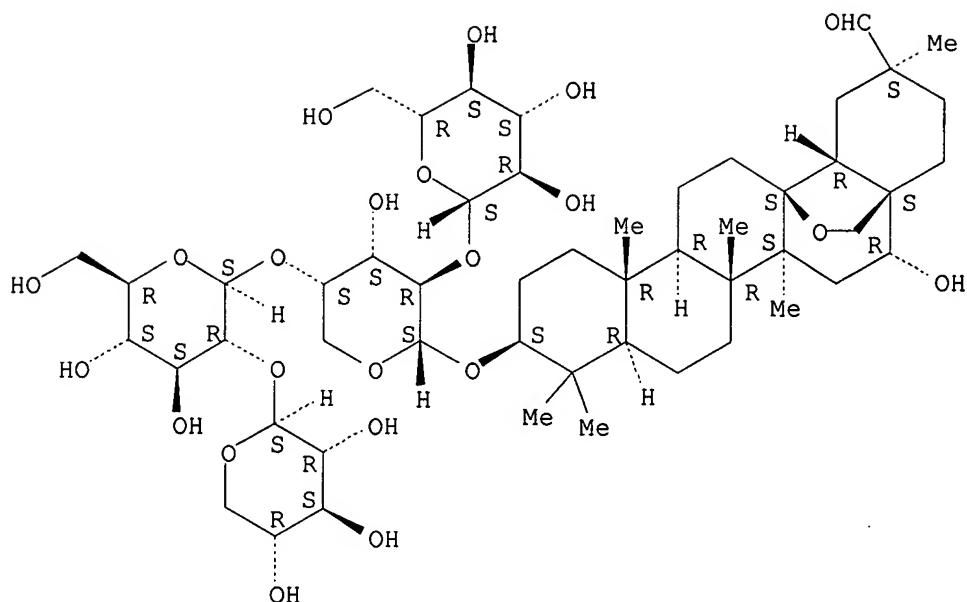
RL: **BAC (Biological activity or effector, except adverse)**; BOC (Biological occurrence); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(cytotoxic saponins from New Zealand **Myrsine** species)

RN 23643-61-0 HCAPLUS

CN Oleanan-29-al, 13,28-epoxy-3-[(O-β-D-glucopyranosyl-(1→2)-O-[O-β-D-xylopyranosyl-(1→2)-β-D-glucopyranosyl-(1→4)]-α-L-arabinopyranosyl)oxy]-16-hydroxy-, (3β,16α,20β)-(9CI) (CA INDEX NAME)

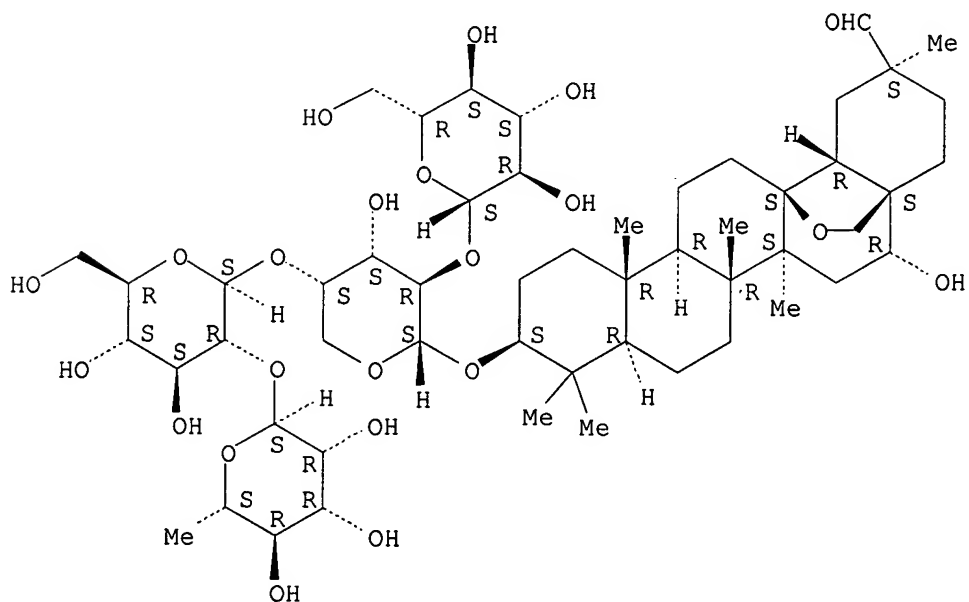
Absolute stereochemistry.



RN 112766-96-8 HCAPLUS

CN Oleanan-29-al, 3-[(O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 $\beta$ ,16 $\alpha$ ,20 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

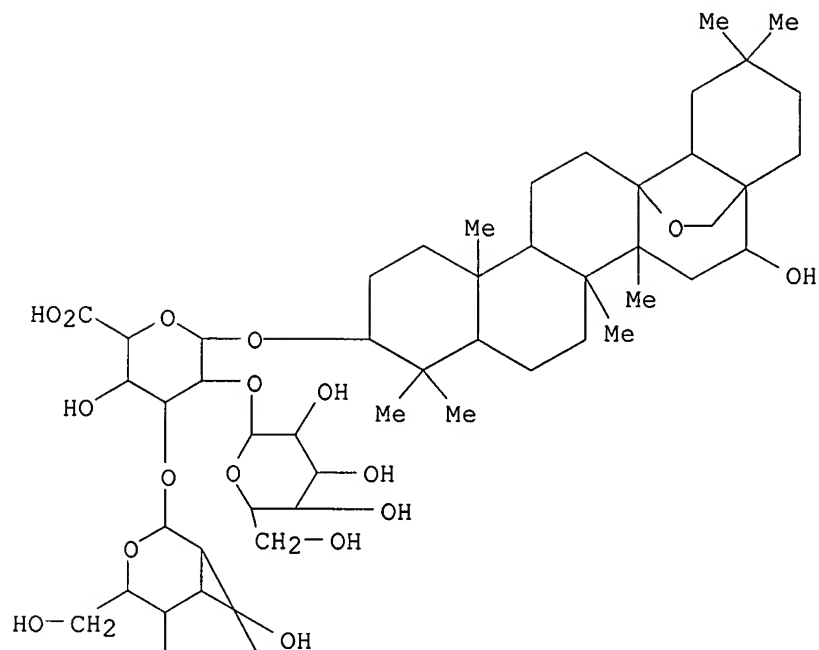
AN 1993:465641 HCAPLUS

DN 119:65641

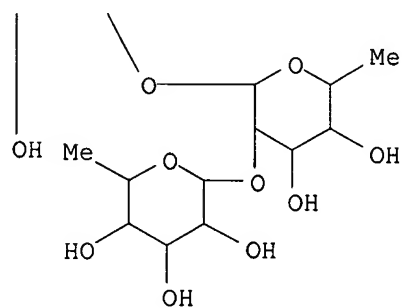
TI Molluscicidal and antifungal triterpenoid saponins from Rapanea

melanophloeos leaves  
AU Ohtani, Kazuhiro; Mavi, Steven; Hostettmann, Kurt  
CS Inst. Pharmacogn. Phytochim., Univ. Lausanne, Lausanne, CH-1015, Switz.  
SO Phytochemistry (1993), 33(1), 83-6  
CODEN: PYTCAS; ISSN: 0031-9422  
DT Journal  
LA English  
AB From the methanolic extract of leaves of *Rapanea melanophloeos*, a molluscicidal and antifungal triterpenoid saponin has been isolated and identified as sakurasosaponin by spectral and chemical methods. Three other saponins, one of which showed weak molluscicidal activity, have also been isolated and identified as derivs. of sakurasosaponin.  
CC 5-6 (Agrochemical Bioregulators)  
Section cross-reference(s): 11, 30  
IT **Myrsine melanphloes**  
(sakurasosaponin derivs. from, antifungal and molluscicidal)  
IT **59527-84-3**, Sakurasosaponin 148843-58-7 148843-59-8  
148843-60-1  
RL: BIOL (Biological study)  
(from *Rapanea melanophloeos*, structure and antifungal and molluscicidal activity of)  
IT **2611-08-7P 148843-61-2P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
IT **465-95-2**, Primulagenin A  
RL: BIOL (Biological study)  
(sakurasosaponin hydrolysis product)  
IT **59527-84-3**, Sakurasosaponin  
RL: BIOL (Biological study)  
(from *Rapanea melanophloeos*, structure and antifungal and molluscicidal activity of)  
RN 59527-84-3 HCAPLUS  
CN  $\beta$ -D-Glucopyranosiduronic acid, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16-hydroxyoleanan-3-yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- (9CI) (CA INDEX NAME)

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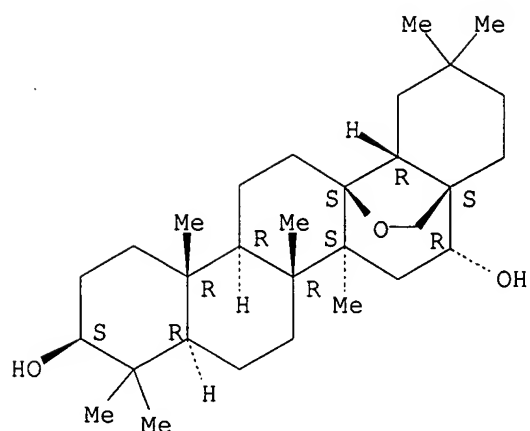
IT 2611-08-7P 148843-61-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 2611-08-7 HCAPLUS

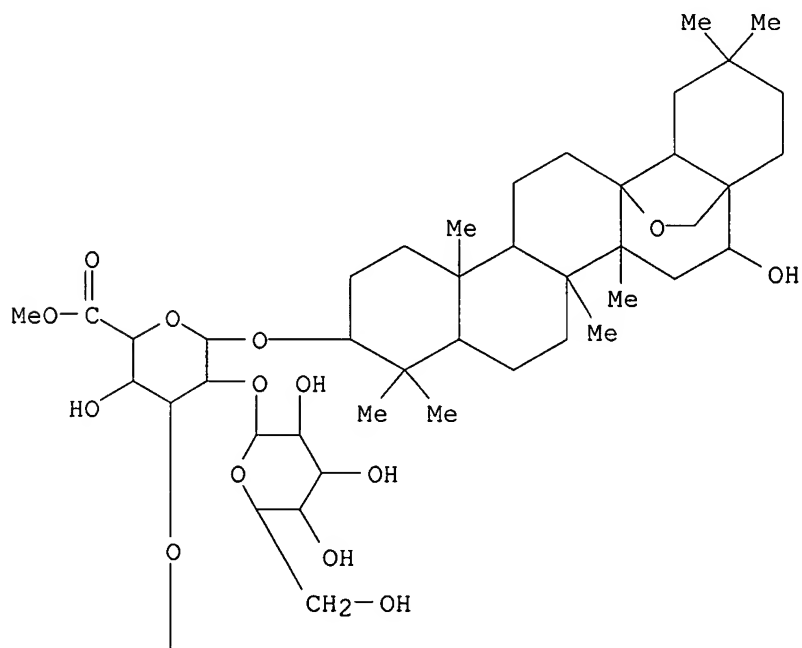
CN Oleanane-3,16-diol, 13,28-epoxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.

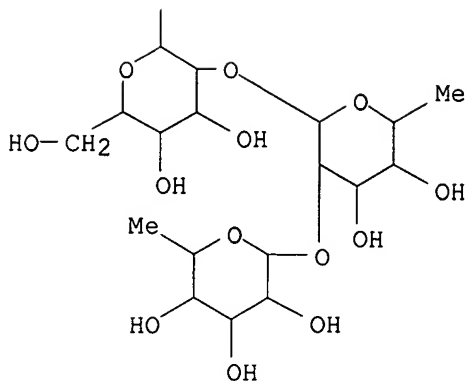


|    |  |         |
|----|--|---------|
| RN | 148843-61-2  | HCAPLUS |
| CN | $\beta$ -D-Glucopyranosiduronic acid, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16-hydroxyoleanan-3-yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]-, methyl ester (9CI)<br>(CA INDEX NAME) |         |

PAGE 1-A

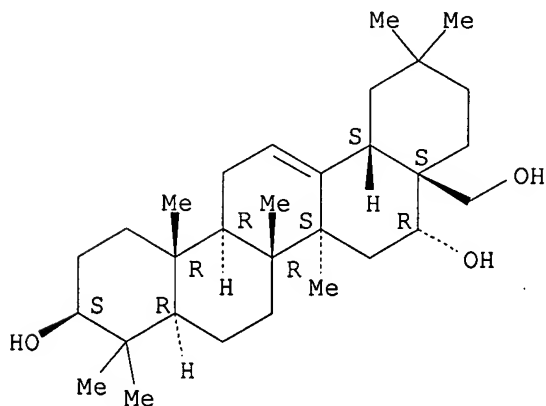


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IT 465-95-2, Primulagenin A  
 RL: BIOL (Biological study)  
 (sakurasosaponin hydrolysis product)  
 RN 465-95-2 HCAPLUS  
 CN Olean-12-ene-3,16,28-triol, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

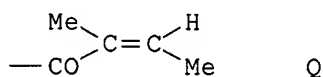
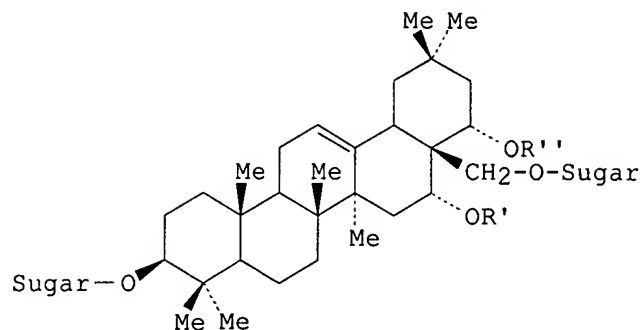


L63 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1992:158896 HCAPLUS  
 DN 116:158896  
 TI Isolation of a nonsteroidal antiinflammatory, analgesic, antipyretic and  
 tranquilosedative triterpene glycoside drug from Maesa chisia, and  
 biological activity and pharmaceutical composition containing the drug  
 IN Chakravarty, Ajit Kumar; Ghatak, Bimal Jyoti Ray; Das, Binayak; Gomes,  
 Aparna; Sharma, Radha Mohan; Pakrashi, Satyesh Chandra  
 PA Council of Scientific and Industrial Research, India  
 SO Indian, 9 pp.  
 CODEN: INXXAP  
 DT Patent  
 LA English  
 FAN.CNT 1

| PATENT NO. | KIND | DATE  | APPLICATION NO. | DATE  |
|------------|------|-------|-----------------|-------|
| -----      | ---- | ----- | -----           | ----- |

jan delaval - 16 august 2006

PI IN 165214 A 19890826 IN 1985-DE1052 19851212 <--  
 PRAI IN 1985-DE1052 19851212 <--  
 OS MARPAT 116:158896  
 GI



AB The title drug I (R', R'' = COMe, Q) is isolated from *M. chisia* D. Don var *angustifolia* Hook plant leaves, using extraction with MeOH. Antiinflammatory, etc. activities of the drug were determined in animal model studies. A tablet formulation is presented.

IC ICM C07C0175-00

CC 63-4 (Pharmaceuticals)  
 Section cross-reference(s): 1, 11

IT **Maesa chisia angustifolia**  
 (triterpene glycoside from, for antiinflammatory and analgesic and antipyretic and tranquilosedative)

IT **111508-73-7D**, sugar conjugates  
 RL: PROC (Process)  
 (isolation of, from *Maesa chisia*, for antiinflammatory and analgesic and antipyretic and tranquilosedative)

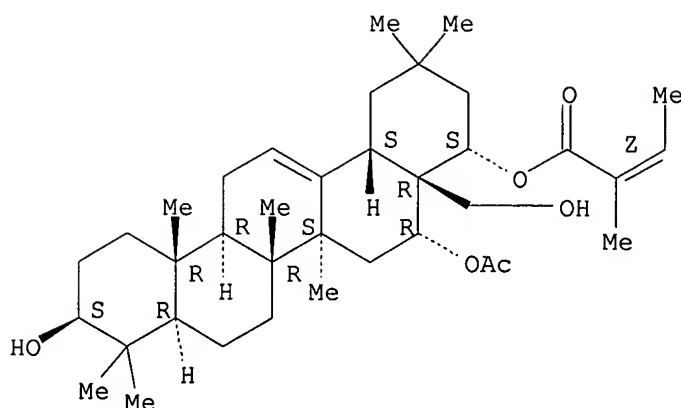
IT **111508-73-7D**, sugar conjugates  
 RL: PROC (Process)  
 (isolation of, from *Maesa chisia*, for antiinflammatory and analgesic and antipyretic and tranquilosedative)

RN 111508-73-7 HCAPLUS

CN Olean-12-ene-3,16,22,28-tetrol, 16-acetate 22-(2-methyl-2-butenate), [3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ (Z)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.





L63 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1991:30111 HCAPLUS  
 DN 114:30111  
 TI Purification of pharmaceutical triterpene glycosides  
 IN Bader, Gerd; Hiller, Karl; Ehwald, Rudolf; Guempel, Christoph; Rathgen, Kerstin  
 PA Humboldt-Universitaet zu Berlin, Ger. Dem. Rep.  
 SO Ger. (East), 5 pp.  
 CODEN: GEXXA8

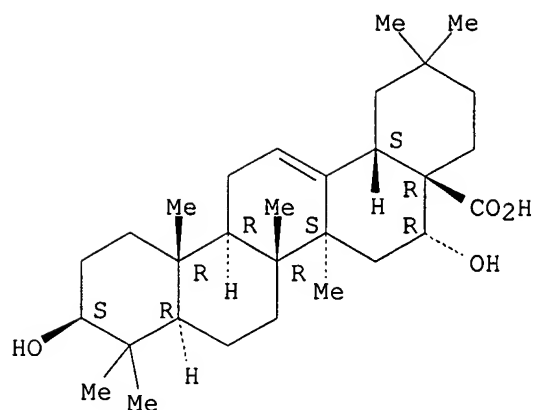
DT **Patent**

LA German

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE         | APPLICATION NO. | DATE         |
|------|---|------|--------------|-----------------|--------------|
| PI   | DD 276287   | A1   | 19900221     | DD 1988-320864  | 19881018 <-- |
| PRAI | DD 1988-320864  |      | 19881018 <-- |                 |              |
| AB   | Pharmaceutical triterpene glycosides, originating from Asteraceae, are purified, individually or in mixture, by column chromatog. on protein-rich vesicular materials, originating from yeast. A crude glycoside extract from <i>Solidago canadensis</i> was passed through a column filled with Fenmosin (spray-dried <i>Candida</i> ). Elution with water yielded bayogenin glycosides, whereas the phenolic glycosides were eluted later with MeOH. A 2nd purification was carried out on Sephadex LH20. |      |              |                 |              |
| IC   | ICM C07H0015-24   |      |              |                 |              |
| CC   | 63-4 (Pharmaceuticals)<br>Section cross-reference(s): 11, 33  |      |              |                 |              |
| IT   | 117-39-5DP, glycosides 508-02-1DP, Oleanolic acid, glycosides 510-30-5DP, Echinocystic acid, glycosides 3570-04-5DP, glycosides 6989-24-8DP, Bayogenin, glycosides<br>RL: PUR (Purification or recovery); PREP (Preparation)<br>(purification of, by column chromatog. on spray-dried yeast)  |      |              |                 |              |
| IT   | 510-30-5DP, Echinocystic acid, glycosides<br>RL: PUR (Purification or recovery); PREP (Preparation)<br>(purification of, by column chromatog. on spray-dried yeast)   |      |              |                 |              |
| RN   | 510-30-5 HCAPLUS  |      |              |                 |              |
| CN   | Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)  |      |              |                 |              |

Absolute stereochemistry. Rotation (+).



L63 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:84152 HCAPLUS

DN 112:84152

TI Medicinal compositions based on flavonoids and saponins extracted from Chrysanthellum, process for their manufacture and therapeutical uses

IN Guillot, Bernard

PA IPHYM S. A., Fr.

SO Eur. Pat. Appl., 5 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|------|---|------|----------|-----------------|--------------|
| PI   | EP 317453   | A1   | 19890524 | EP 1988-420384  | 19881116 <-- |
|      | EP 317453   | B1   | 19930203 |                 |              |
|      | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                 |              |
|      | FR 2623398  | A1   | 19890526 | FR 1987-16668   | 19871119 <-- |
|      | FR 2623398  | B1   | 19900406 |                 |              |
|      | AT 85222  | E    | 19930215 | AT 1988-420384  | 19881116 <-- |
|      | ES 2053793  | T3   | 19940801 | ES 1988-420384  | 19881116 <-- |
| PRAI | FR 1987-16668   | A    | 19871119 | <--             |              |
|      | EP 1988-420384  | A    | 19881116 | <--             |              |

AB Flavonoids and saponins (at a 2:1 ratio) are extracted from Chrysanthellum, which are useful for the treatment of cystic lithiasis, venous insufficiency, and arteritis. Powdered C. americanum, C. procumbens, or C. indicum afroamericanum (200 kg) was extracted with EtOH at 60° and the extract was washed with CH<sub>2</sub>Cl<sub>2</sub>. The product contained chrysanthellin A and B derivs. of echinocystic acid and caulophyllogenin, glucosyl 7 isookanin, glucosyl 7 eriodictyol, glucosyl 7 luteolin, marein, maritimein, apigenin, caffeic acid, chlorogenic acid, and isochlorogenic acid. In patients treated with 300 mg of the extract/day for 2 mo cholesterol levels decreased 17% and triglycerides dropped 56%.

IC ICM A61K0035-78

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 1, 11

IT 327-97-9, Chlorogenic acid 327-97-9D, Chlorogenic acid, derivs.

331-39-5 331-39-5D, Caffeic acid, derivs. 490-54-0, Maritimein

510-30-5D, Echinocystic acid, chrysantellin A and B derivs.

520-36-5, Apigenin 534-61-2, Isochlorogenic acid 535-96-6, Marein

577-38-8 5373-11-5 38965-51-4 52936-64-8D, Caulophyllogenin,

chrysantellin A and B derivs. 73039-13-1D, Chrysantellin A, derivs.  
74411-65-7D, Chrysantellin B, derivs.

RL: BIOL (Biological study)

(medical composition containing, from Chrysanthellum)

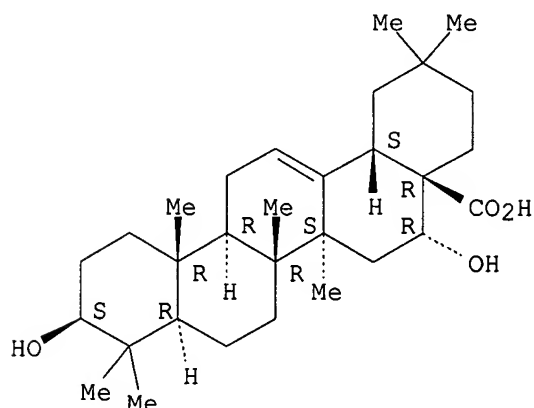
IT 510-30-5D, Echinocystic acid, chrysantellin A and B derivs.

RL: BIOL (Biological study)

(medical composition containing, from Chrysanthellum)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
INDEX NAME)



L63 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1987:633091 HCAPLUS

DN 107:233091

TI Triterpenoid prosaponins from leaves of *Maesa chisia* var. *angustifolia*

AU Chakravarty, Ajit K.; Das, Binayak; Pakrashi, Satyesh C.

CS Indian Inst. Chem. Biol., Calcutta, 700032, India

SO Phytochemistry (1987), 26(8), 2345-9

CODEN: PYTCAS; ISSN: 0031-9422

DT Journal

LA English

AB Acid hydrolysis of the saponin fraction of the leaves of *M. chisia* var. *angustifolia* yielded a monoglucoside fraction, along with camelliagenin A as a minor constituent. The glucose moiety of the former could be removed by hydrolysis by Smith degradation to yield 2 new acylated triterpenoids characterized as 16 $\alpha$ -O-acetyl-22 $\alpha$ -O-angeloyl-camelliagenin A and 16 $\alpha$ -O-acetyl-22 $\alpha$ -O-(2'-methylbutyryl)-camelliagenin A, as well as camelliagenin A and its 22 $\alpha$ ,28-glycoaldehyde acetal. The possibility of the latter acetal derivative being an artifact could not, however, be ruled out.

CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 30

IT ***Maesa chisia angustifolia***

(triterpenoid prosaponins of)

IT 53227-91-1, Camelliagenin A 111508-73-7

111508-74-8

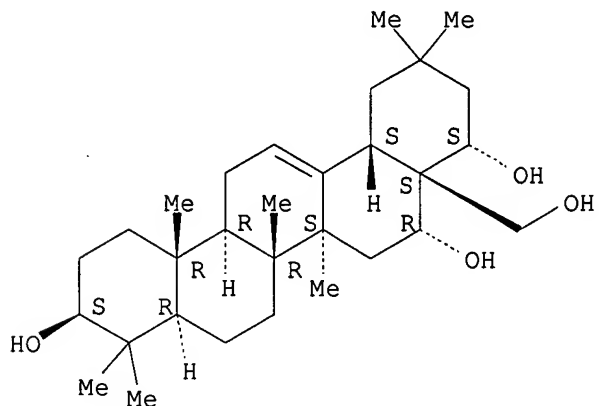
RL: BIOL (Biological study)

(from *Maesa chisia angustifolia*)

IT 19885-04-2P 111508-70-4P 111508-71-5P 111508-72-6P  
111508-75-9P

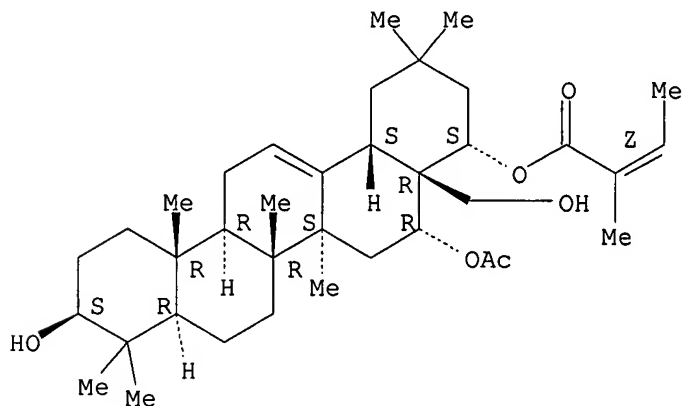
RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 IT 53227-91-1, Camelliagenin A 111508-73-7  
 111508-74-8  
 RL: BIOL (Biological study)  
 (from *Maesa chisia angustifolia*)  
 RN 53227-91-1 HCAPLUS  
 CN Olean-12-ene-3,16,22,28-tetrol, (3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.



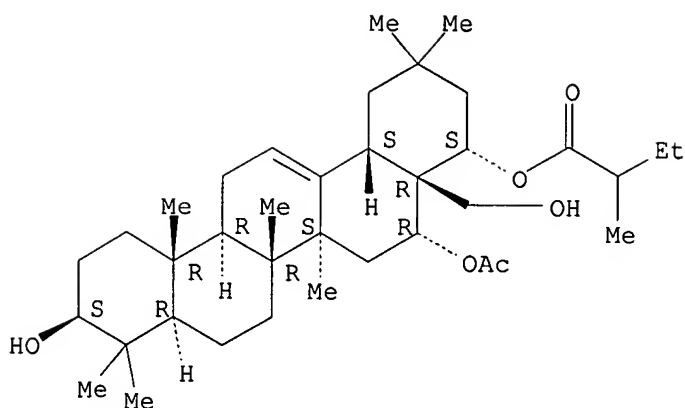
RN 111508-73-7 HCAPLUS  
 CN Olean-12-ene-3,16,22,28-tetrol, 16-acetate 22-(2-methyl-2-butenate),  
 [3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ (Z)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RN 111508-74-8 HCAPLUS  
 CN Olean-12-ene-3,16,22,28-tetrol, 16-acetate 22-(2-methylbutanoate),  
 (3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



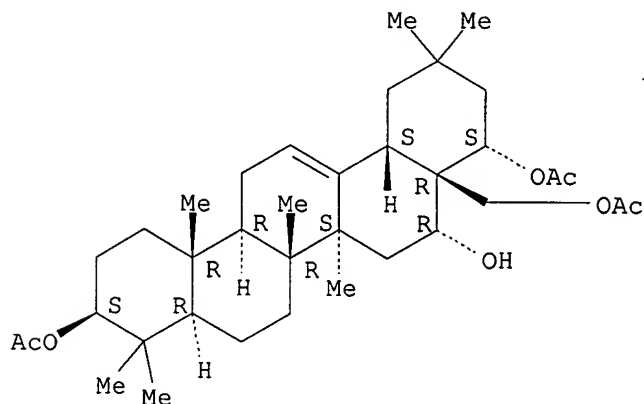
IT 19885-04-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 19885-04-2 HCAPLUS

CN Olean-12-ene-3,16,22,28-tetrol, 3,22,28-triacetate,  
(3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ )-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1986:165407 HCAPLUS

DN 104:165407

TI A contribution to the phytochemical survey of Peninsular Malaysia

AU Bin Rahmani, Mawardi; Kiew, Ruth; Lajis, Nordin H.; Othman, Rahim; Toia, Robert F.

CS Dep. Org. Chem., Univ. New South Wales, Kensington, 2033, Australia

SO     *Pertanika* (1985), 8(3), 347-57

CODEN: PERTDY; ISSN: 0126-6128

DT Journal

LA English

AB Specimens of 216 plants representing 150 genera and 50 families were collected from 4 areas in the western and central parts of Peninsular Malaysia. The leaves of each species were screened for alkaloids, steroids and **triterpenes**, and saponins. Twenty-eight species

(13%) gave a pos. test for alkaloids, 86 (40%) for saponins, and 55 (25%) for **triterpenes**/steroids.

CC 11-1 (Plant Biochemistry)

IT Acanthaceae

Allophylus cobbe

Apocynaceae

Canarium

Compositae

Costus speciosus

Euphorbiaceae

Eurycoma longifolia

Gynotroches axillaris

Isotoma longiflora

Leea indica

Legume

Melastomataceae

**Myrsinaceae**

Myrtaceae

Physalis minima

Rosaceae

Rubiaceae

Saurauia nudiflora

Schima wallichii

Ulmaceae

Verbenaceae

(constituents of, of Peninsular Malaysia)

IT Alkaloids, biological studies

Natural products

Saponins

Steroids, biological studies

**Triterpenes and Triterpenoids**

RL: BIOL (Biological study)

(of plants, of Peninsular Malaysia)

L63 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1978:552709 HCAPLUS

DN 89:152709

TI Extract of Chrysantellum type plants

IN Combier, Henri; Fauran, Francois; Andre-Mouries, Claude; Prat, Gisele; Thibault, Annie

PA Laboratoires Sarget, Fr.

SO Ger. Offen., 17 pp.

CODEN: GWXXBX

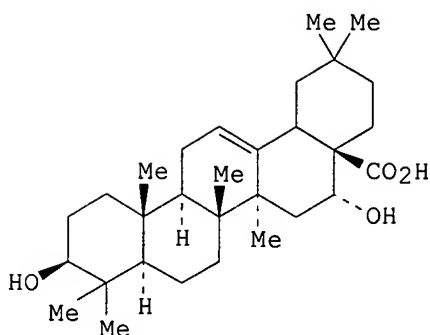
DT **Patent**

LA German

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE         |
|------|--------------|------|----------|-----------------|--------------|
|      | -----        | ---- | -----    | -----           | -----        |
| PI   | DE 2801186   | A1   | 19780727 | DE 1978-2801186 | 19780112 <-- |
|      | DE 2801186   | C2   | 19890413 |                 |              |
|      | FR 2378044   | A1   | 19780818 | FR 1977-1488    | 19770120 <-- |
|      | FR 2378044   | B1   | 19790511 |                 |              |
|      | NL 7800030   | A    | 19780724 | NL 1978-30      | 19780102 <-- |
|      | CA 1090781   | A1   | 19801202 | CA 1978-294559  | 19780109 <-- |
|      | BE 862852    | A1   | 19780502 | BE 1978-184267  | 19780112 <-- |
|      | CH 630528    | A    | 19820630 | CH 1978-330     | 19780112 <-- |
|      | ZA 7800300   | A    | 19790228 | ZA 1978-300     | 19780117 <-- |
|      | US 4146615   | A    | 19790327 | US 1978-870649  | 19780119 <-- |
|      | ES 466222    | A1   | 19781016 | ES 1978-466222  | 19780120 <-- |
| PRAI | FR 1977-1488 | A    | 19770120 | <--             |              |

GI



AB Chrysantellum plant triterpene-rich exts. having as main component a new saponin derivative of echinocystic acid (I) which contains rhamnose, glucose and xylose in the sugar fraction are obtained by extraction with an organic solvent or aqueous organic solvent mixture, defatting and concentration of the organic phase, and redissoln. of the precipitate in an organic solvent such as CHCl<sub>3</sub>. The exts.

show oral and i.p. LD<sub>50</sub>s of 3200 and 15-30 mg/kg in mice. They are useful in human and veterinary medicine and they show analgesic, antiinflammatory, and capillary-protective activity, and suitability for treatment of leg ulcers. A salve was prepared by combining 3 g of an extract with enough polyethylene glycol and H<sub>2</sub>O to give 100 g. Low mol. weight alcs. and dialkylketones and esters of low mol. weight aliphatic alcs. are useful as the extraction solvents.

IC A61K0035-78

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 11

IT 510-30-5D, saponin derivs.

RL: BIOL (Biological study)

(Chrysantellum exts. containing, isolation and pharmacol. of)

IT 510-30-5D, saponin derivs.

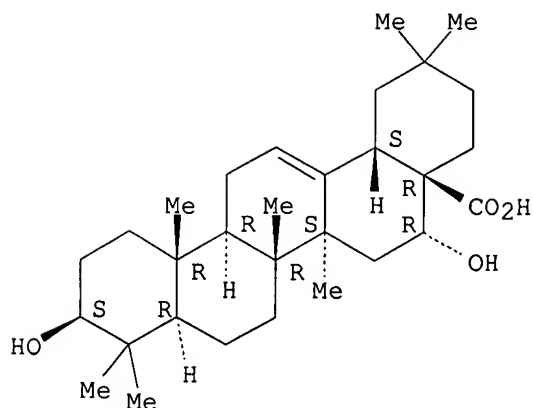
RL: BIOL (Biological study)

(Chrysantellum exts. containing, isolation and pharmacol. of)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

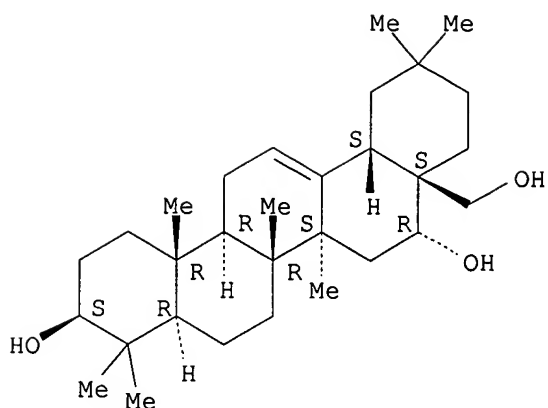
Absolute stereochemistry. Rotation (+).



L63 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1978:456465 HCAPLUS  
 DN 89:56465  
 TI Chemical constituents of *Tapeinosperma pseudojambosa*  
 AU Baigent, D. Robin; Lewis, Keith G.  
 CS Org. Chem. Dep., Univ. New England, Armidale, Australia  
 SO Australian Journal of Chemistry (1978), 31(6), 1375-81  
 CODEN: AJCHAS; ISSN: 0004-9425  
 DT Journal  
 LA English  
 AB The leaves and bark of *T. pseudojambosa* contained, as in other **Myrsinaceae**, a "quinone" fraction in quantity. From the various exts. of the leaves and bark the known  $\alpha$ - and  $\beta$ -amyrin, bauerenol, quercetrin, primulagenin A, and echinocystic acid were obtained.  
 CC 11-1 (Plant Biochemistry)  
 IT **Triterpenes and Triterpenoids**  
 RL: BIOL (Biological study)  
 (in bark and leaves of *Tapeinosperma pseudojambosa*)  
 IT *Tapeinosperma pseudojambosa*  
 (triterpenes in bark and leaves of)  
 IT 465-95-2 510-30-5 522-12-3 559-70-6 638-95-9  
 6466-94-0  
 RL: BIOL (Biological study)  
 (in bark and leaves of *Tapeinosperma pseudojambosa*)  
 IT 465-95-2 510-30-5  
 RL: BIOL (Biological study)  
 (in bark and leaves of *Tapeinosperma pseudojambosa*)  
 RN 465-95-2 HCAPLUS  
 CN Olean-12-ene-3,16,28-triol, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

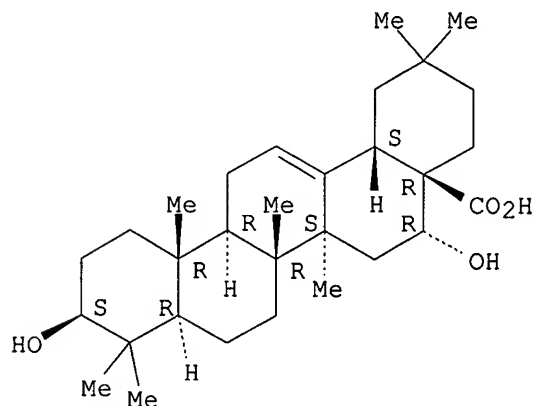
Absolute stereochemistry.





RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry. Rotation (+).



L63 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1975:497648 HCAPLUS

DN 83:97648

TI 13,28-Epoxyolcananes

IN Igarashi, Kikuo; Ishii, Hiroshi; Sakurai, Kensuke

PA Shionogi and Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT **Patent**

LA Japanese

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE         |
|------|--|------|----------|-----------------|--------------|
| PI   | JP 50064265  | A2   | 19750531 | JP 1973-116203  | 19731016 <-- |
|      | JP 58044662  | B4   | 19831004 |                 |              |
| PRAI | JP 1973-116203   | A    | 19731016 | <--             |              |
| GI   | For diagram(s), see printed CA Issue.                              |      |          |                 |              |
| AB   | Oleanones (I, R7-R8 = H, OH, R9,R10 = H, OH or R9R10 = epoxy) were |      |          |                 |              |

acylated to give II (R = acyl, R7-R8 = H, acyloxy, R9,R10 = H, acyloxy, or R9R10 = epoxy), allylic oxidation of which gave III, which were reduced (metal hydride) to IV, and IV were treated with acid to give epoxyoleanene V. Thus, 257 mg II (R = Ac, R1 = R3-R8 = R10 = H, R2 = R9 = OAc), prepared by acetylation of I (R1 = R3-R8 = R10, R2 = R9 = OH), was oxidized with Na2Cr2O7-HOAc to give 252 mg III (R = Ac, R1 = R3-R8 = R10 = H, R2 = R9 = OAc), which (309 mg) was reduced with LiAlH4 to give 255 mg IV (R1 = R3-R10 = H, R2 = R9 = OH). The latter (255 mg) in dioxane was treated with 0.05% p-MeC6H4SO3H for 15 min at room temperature to give 210 mg

saikogenin

G. About 13 addnl. I were prepared similarly. I were inflammation inhibitors.

IC C07D; A61K; B01J

CC 30-30 (Terpenoids)

Section cross-reference(s): 63

IT **13844-01-4**

RL: PROC (Process)

(conversion of, to 21 $\beta$ ,22 $\alpha$ -dihydroxy-16-episaikogenin E)

IT **53227-91-1**

RL: PROC (Process)

(conversion of, to 22 $\alpha$ -hydroxy-16-episaikogenin E)

IT **14694-67-8**

RL: PROC (Process)

(conversion of, to 3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ ,28-pentaacetoxyolean-12-en-11-one)

IT **13844-01-4**

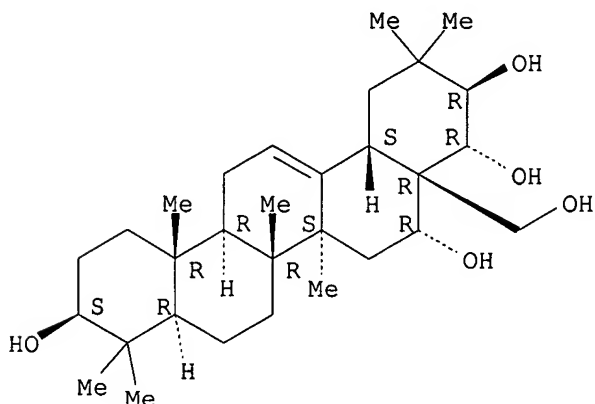
RL: PROC (Process)

(conversion of, to 21 $\beta$ ,22 $\alpha$ -dihydroxy-16-episaikogenin E)

RN 13844-01-4 HCAPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **53227-91-1**

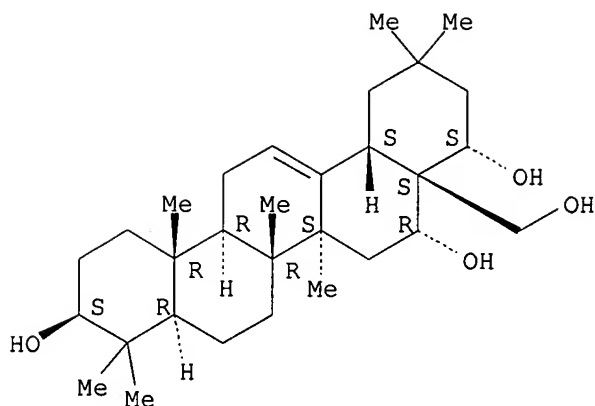
RL: PROC (Process)

(conversion of, to 22 $\alpha$ -hydroxy-16-episaikogenin E)

RN 53227-91-1 HCAPLUS

CN Olean-12-ene-3,16,22,28-tetrol, (3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ )-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **14694-67-8**

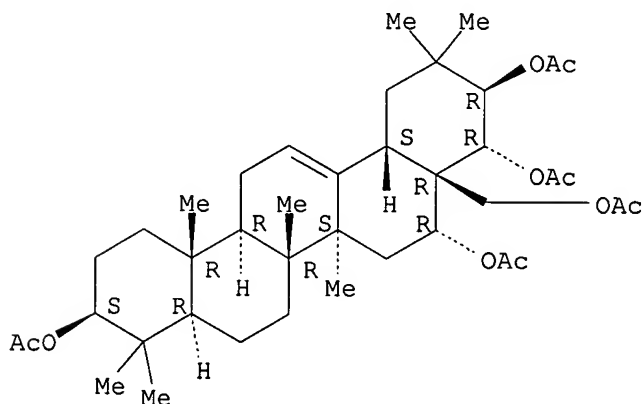
RL: PROC (Process)

(conversion of, to 3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ ,28-pentaacetoxyolean-12-en-11-one)

RN 14694-67-8 HCAPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, pentaacetate, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

AN **1968:47007** HCAPLUS

DN **68:47007**

TI Extractives of some **Myrsine** species

AU Cambie, Richard C.; Couch, R. A. F.

CS Univ. Auckland, Auckland, N. Z.

SO New Zealand Journal of Science (1967), 10(4), 1020-9

CODEN: NZJSAB; ISSN: 0028-8365

DT Journal

LA English

AB To reduce the uncertainty concerning the occurrence in **Myrsinaceae** of certain compds., ir, uv, and N.M.R. spectral analyses were performed on chromatog. separated exts. of various plant parts. Vilangin and (+)-quercitol were isolated from the flowers of *M. australis*, while embelin, vilangin and 2 leucoanthocyanins were present in the fruit. From the leaves

```
CC      7 (Plant Biochemistry)
ST      TERPENOIDS PLANT; EXTRACTIVES MYRSINE; MYRSINE COMPN
IT      Myrsine (genus)
        (australis and kermadecensis and salicina, constituents of)
IT      117-39-5    153-18-4 465-95-2    488-73-3    522-12-3    550-24-3
        630-07-9    4370-68-7
        RL: BIOL (Biological study)
        (in Myrsine)
IT      465-95-2
        RL: BIOL (Biological study)
        (in Myrsine)
RN      465-95-2    HCAPLUS
CN      Olean-12-ene-3,16,28-triol, (3 $\beta$ ,16 $\alpha$ )- (9CI)    (CA INDEX NAME)
```

The chemical structure is a complex steroid-like molecule, likely a triterpene. It features a fused ring system with several methyl groups (Me) and hydroxyl groups (OH). The stereochemistry is indicated by 'S' and 'R' labels at various chiral centers. The molecule has a complex, branched structure with multiple stereocenters.

jan delaval - 16 august 2006

Theaceae, 14 in Aquifoliaceae, 7 in Leguminosae, 30 in Rosaceae, 5 in Ranunculaceae, 12 in Fagaceae, 6 in Liliaceae and 101 in others. It follows, therefore, that the distribution of **triterpenoid** in plant is unexpectedly wide-spread and could be classed as a normal component; the content is generally greater in evergreen plants having thick leaves with well-developed cuticula.

CC 11D (Biological Chemistry: Botany)

IT **Triterpenes**

(in plants)

IT Plants

(**triterpenoids** in)

=> d 164 bib abs hitstr retable tot

L64 ANSWER 1 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:664360 HCAPLUS

DN 130:75767

TI In vitro antifungal and cytotoxic activity of triterpene saponosides and quinoid pigments from *Lysimachia vulgaris* L.

AU Podolak, I.; Elas, M.; Cieszka, K.

CS Department of Pharmacognosy, Collegium Medicum, Jagiellonian University, Krakow, 30-688, Pol.

SO Phytotherapy Research (1998), 12(Suppl. 1, Second International Symposium on Natural Drugs, 1997), S70-S73

CODEN: PHYREH; ISSN: 0951-418X

PB John Wiley & Sons Ltd.

DT Journal

LA English

AB *Lysimachia vulgaris* L. (Primulaceae) has been used in the folk medicine of Europe and Asia in the treatment of fever, ulcers, diarrhea and as an analgesic and antiinflammatory agent. From the underground parts of the plant a benzoquinone pigment and triterpene saponosides were isolated. Cytotoxic and antifungal activity of these compds. were tested in vitro against human and mouse melanoma cells and the yeast *Candida albicans* resp. The results showed that saponoside B exerted cytotoxicity especially towards human melanoma cells. The pigment was more active as an antifungal agent.

IT 126882-54-0

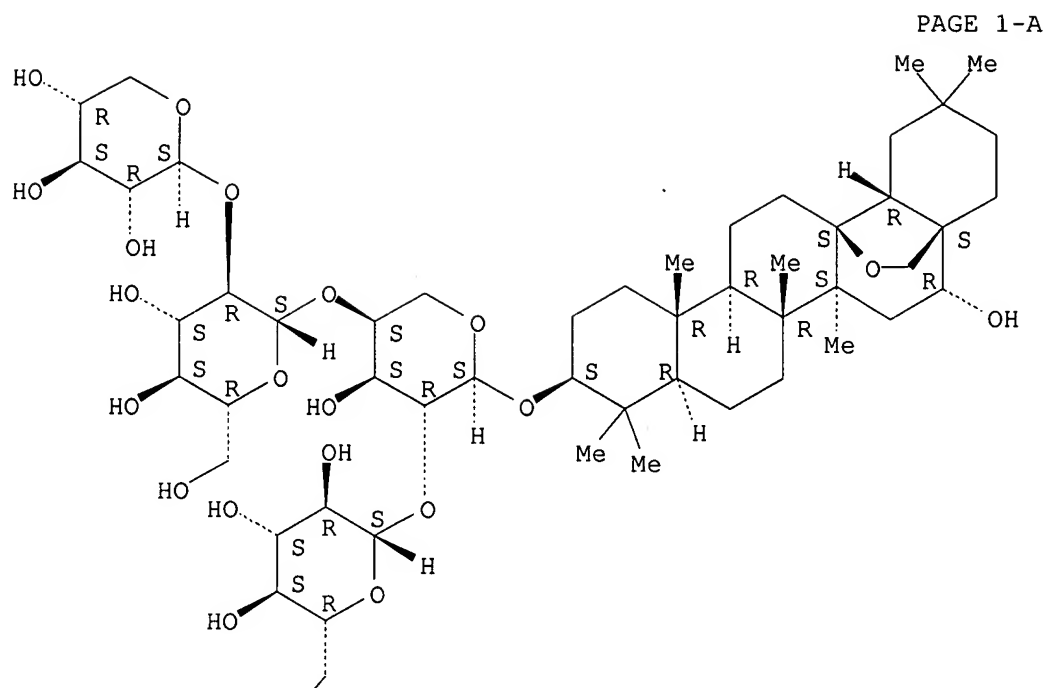
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antifungal and cytotoxic activity of triterpenoid saponosides and quinoid pigments from *Lysimachia vulgaris*)

RN 126882-54-0 HCAPLUS

CN  $\alpha$ -L-Arabinopyranoside, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16-hydroxyoleanan-3-yl O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O-[O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



PAGE 2-A



## RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Bloor, S                   | 1994          | 57           | 1354        | J Nat Prod               | HCAPLUS            |
| Janik, I                   | 1994          | 65           | 1476        | Fitoterapia              | HCAPLUS            |
| Kinoshita, K               | 1992          | 58           | 137         | Planta Med               | HCAPLUS            |
| Kubo, I                    | 1994          | 4            | 1131        | Bioorgan Med Chem Le     | HCAPLUS            |
| Ohtani, K                  | 1993          | 33           | 83          | Phytochemistry           | HCAPLUS            |
| Quetin-Leclercq, J         | 1992          | 58           | 279         | Planta Med               | HCAPLUS            |
| Rahalison, L               | 1994          | 60           | 41          | Planta Med               | HCAPLUS            |
| Tschesche, R               | 1963          | 19           | 621         | Tetrahedron              | HCAPLUS            |

L64 ANSWER 2 OF 47 · HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:15420 HCAPLUS

DN 128:124596

TI Metallothionein-independent hepatoprotection by zinc and sakuraso-saponin  
 AU Itoh, Norio; Kimura, Tomoki; Nakanishi, Hirokuni; Muto, Norio; Kobayashi, Motomasa; Kitagawa, Isao; Tanaka, Keiichi

CS Suita, Yamada-oka, Pharmaceutical Sciences, Environmental Toxicology,  
 Osaka University, Osaka 565, 1-6, Japan

SO Toxicology Letters (1997), 93(2,3), 135-140

CODEN: TOLED5; ISSN: 0378-4274

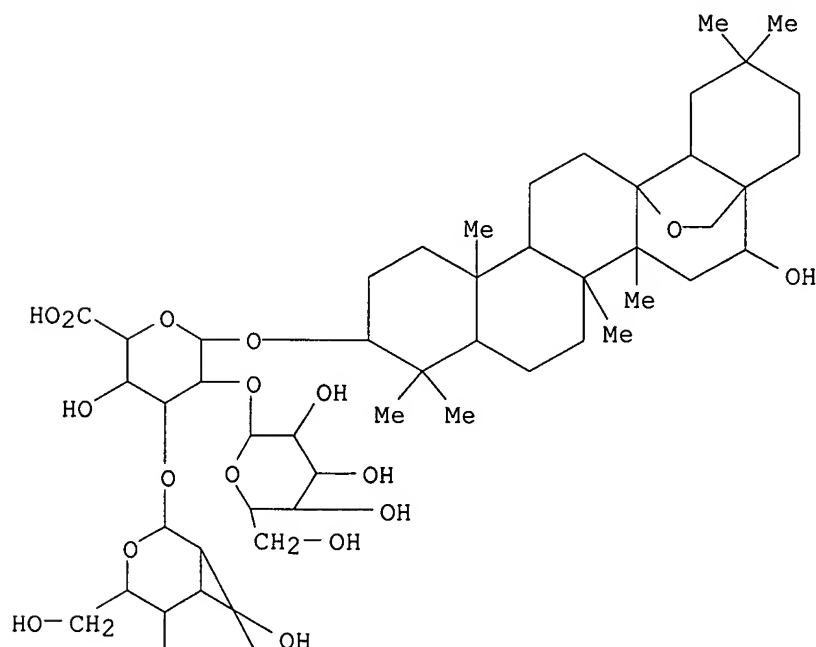
PB Elsevier Science Ireland Ltd.

DT Journal  
 LA English  
 AB Hepatoprotective activities of zinc and sakuraso-saponin against toxicity of carbon tetrachloride were investigated in metallothionein (MT)-deficient mice. Pretreatment of control 129/Sv mice with zinc or sakuraso-saponin blocked carbon tetrachloride-induced elevation of plasma transaminase activities. Quant. equivalent protection against carbon tetrachloride-induced hepatic damage was also observed in MT-deficient mice. Zinc and sakuraso-saponin caused elevation of hepatic MT levels in control 129/Sv mice, whereas hepatic MT was undetectable in MT-deficient mice. To examine the possibility that sakuraso-saponin-induced hepatoprotection is mediated by endogenous zinc, the hepatic concentration of zinc was analyzed. Hepatic zinc concentration in MT-deficient mice was not changed by the treatment of sakuraso-saponin. Injection of sakuraso-saponin caused a decrease of activity of aniline hydroxylation. The suppression of cytochrome P 450 appears to be a mechanism by which sakuraso-saponin protects mice from the hepatotoxic effects of carbon tetrachloride. These findings indicate that the hepatoprotective activity of zinc or sakuraso-saponin is not dependent on their MT-inducing activity.

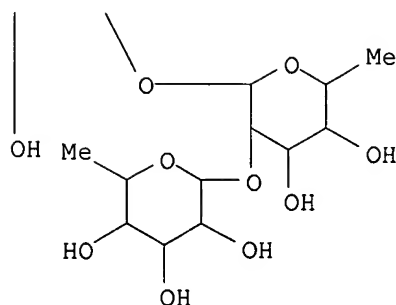
IT 59527-84-3, Sakuraso-saponin  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (metallothionein-independent hepatoprotection by zinc and sakuraso-saponin)

RN 59527-84-3 HCAPLUS  
 CN  $\beta$ -D-Glucopyranosiduronic acid, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16-hydroxyoleanan-3-yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



## RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Bhathal, P                 | 1983          | 64           | 524         | Br J Exp Pathol          | HCAPLUS            |
| Biesel, K                  | 1984          | 65           | 125         | Br J Exp Pathol          | HCAPLUS            |
| Cagen, S                   | 1979          | 51           | 107         | Toxicol Appl Pharmac     | HCAPLUS            |
| Clarke, I                  | 1986          | 64           | 1104        | Can J Physiol Pharma     | HCAPLUS            |
| Diaz, G                    | 1980          | 56           | 199         | Toxicol Appl Pharmac     |                    |
| Dunn, M                    | 1987          | 185          | 107         | Proc Soc Exp Biol Me     | HCAPLUS            |
| Hanna, P                   | 1993          | 6            | 711         | Chem Res Toxicol         | HCAPLUS            |
| Hu, Y                      | 1994          | 269          | 1286        | J Pharmacol Exp Ther     | HCAPLUS            |
| Imai, Y                    | 1966          | 60           | 417         | J Biochem                | HCAPLUS            |
| Itoh, N                    | 1997          | 11           | 132         | Phytother Res            | HCAPLUS            |
| Johansson, I               | 1985          | 183          | 265         | FEBS Lett                | HCAPLUS            |
| Kitagawa, I                | 1980          | 28           | 296         | Chem Pharm Bull          | HCAPLUS            |
| Liu, J                     | 1993          | 121          | 144         | Toxicol Appl Pharmac     | HCAPLUS            |
| Liu, J                     | 1995          | 134          | 124         | Toxicol Appl Pharmac     | HCAPLUS            |
| Masters, B                 | 1994          | 91           | 584         | Proc Natl Acad Sci U     | HCAPLUS            |
| Michalska, A               | 1993          | 90           | 8088        | Proc Natl Acad Sci U     | HCAPLUS            |
| Omura, T                   | 1964          | 239          | 2370        | J Biol Chem              | HCAPLUS            |
| Onosaka, S                 | 1978          | 24           | 128         | Eiseikagaku              | HCAPLUS            |
| Robert, R                  | 1983          | III          | 416         | Methods of enzymatic     |                    |
| Suntres, E                 | 1990          | 39           | 833         | Biochem Pharmacol        |                    |
| Wormser, U                 | 1989          | 13           | 316         | Arch Toxicol Suppl       | HCAPLUS            |

L64 ANSWER 3 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:274962 HCAPLUS

DN 126:325444

TI Metallothionein induction and hepatoprotection by echinoside A and Sakuraso-saponin

AU Itoh, Norio; Morishita, Yasuhiro; Tanaka, Tetsuya; Muto, Norio; Kobayashi, Motomasa; Kitagawa, Isao; Tanaka, Keiichi

CS Faculty of Pharmaceutical Sciences, Osaka University, Suita, 565, Japan

SO Phytotherapy Research (1997), 11(2), 132-135

CODEN: PHYREH; ISSN: 0951-418X

PB Wiley

DT Journal

LA English

AB Metallothionein-inducing activities of 11 saponins were investigated in mice. Of the saponins investigated, echinoside A and sakuraso-saponin were highly effective. Sakuraso-saponin showed dose-dependent and time-dependent induction of hepatic metallothionein. The isoforms of the



induced metallothionein in the liver were determined to be metallothionein 1 and 2. Induction of metallothionein was observed specifically in the liver and heart. Echinaside A showed similar effects to sakuraso-saponin except that no induction was observed in the heart. Pretreatment of mice with these saponins blocked CCl<sub>4</sub>-induced hepatic injury, such as the elevation of plasma transaminase activity and centrilobular necrosis in the liver. CCl<sub>4</sub>-induced elevation of lipid peroxide level in the liver was also blocked by injection of sakuraso-saponin. The hepatoprotective activities of the saponins found in this study may have been due to their MT-inducing activity.

IT 59527-84-3, Sakuraso-saponin

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); THU (Therapeutic use); BIOL

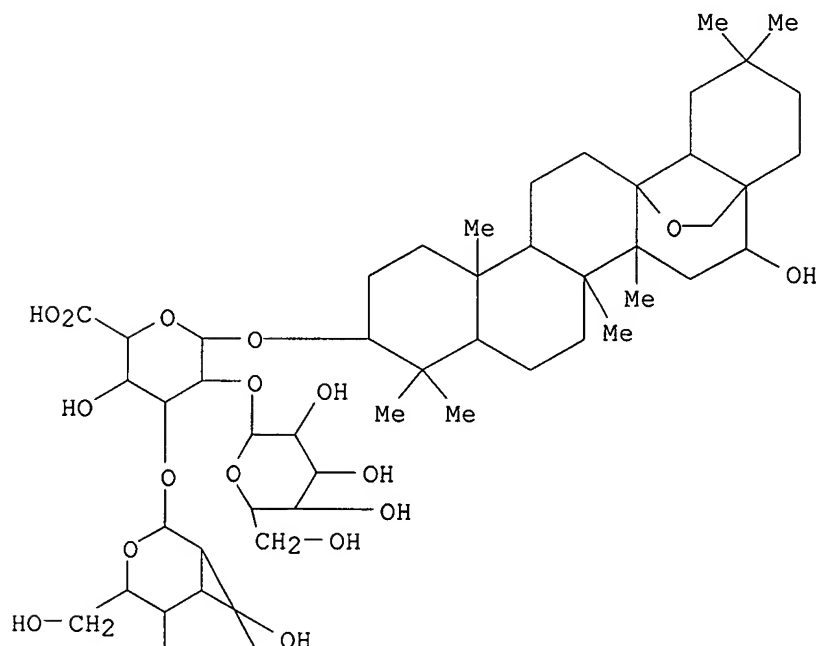
(Biological study); USES (Uses)

(echinaside A, Sakuraso-saponin, and other saponins hepatoprotective activity and induction of metallothionein in liver and heart)

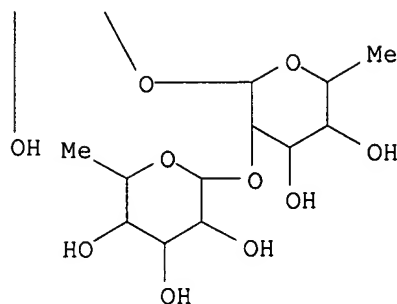
RN 59527-84-3 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16-hydroxyoleanan-3-yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- (9CI) (CA INDEX NAME)

PAGE 1-A

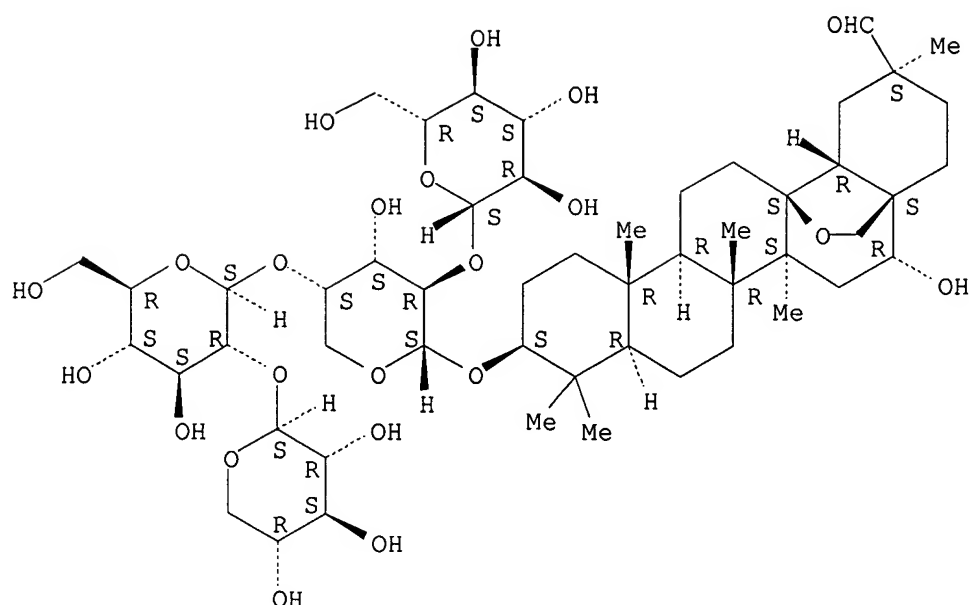


PAGE 2-A



L64 ANSWER 4 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1997:164980 HCAPLUS  
 DN 126:142052  
 TI Triterpene Saponins from *Cyclamen mirabile* and Their Biological Activities  
 AU Calis, Ihsan; Satana, Mesut Ersan; Yuerueker, Aysen; Kelican, Pelin;  
 Demirdamar, Ruemeysa; Alacam, Ruhi; Tanker, Nevin; Rueegger, Heinz;  
 Sticher, Otto  
 CS Faculty of Pharmacy, Hacettepe University, Ankara, TR-06100, Turk.  
 SO Journal of Natural Products (1997), 60(3), 315-318  
 CODEN: JNPRDF; ISSN: 0163-3864  
 PB American Chemical Society  
 DT Journal  
 LA English  
 AB Six saponins, cyclaminorin, deglucocyclamin, cyclacoumin, cyclamin,  
 isocyclamin, and mirabilin (I) were isolated from the tubers of *Cyclamen*  
*mirabile*. I is a new natural compound, and its structure was established as  
 3-{O-β-[[β-D-xylopyranosyl-(1→2)]-β-D-glucopyranosyl-(1→4)]-β-D-glucopyranosyl-(1→2)]-α-L-arabinopyranosyl}-  
 3β,16α,28-trihydroxyolean-12-en-30-oic acid. The structure  
 elucidation of this compound was accomplished using both spectral and chemical  
 methods. Antimicrobial and uterocontractile activities of the saponins  
 were also investigated.  
 IT 23643-61-0, Deglucocyclamin  
 RL: BAC (Biological activity or effector, except adverse); BOC  
 (Biological occurrence); BSU (Biological study, unclassified); THU  
 (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES  
 (Uses)  
 (triterpene saponins from *Cyclamen mirabile* and their biol. activities)  
 RN 23643-61-0 HCAPLUS  
 CN Oleanan-29-al, 13,28-epoxy-3-[(O-β-D-glucopyranosyl-(1→2)-O-[O-β-D-xylopyranosyl-(1→2)-β-D-glucopyranosyl-(1→4)]-α-L-arabinopyranosyl)oxy]-16-hydroxy-, (3β,16α,20β)-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 5 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:542077 HCAPLUS

DN 125:270436

TI Bioactive saponins and glycosides. III. Horse chestnut. (1): The structures, inhibitory effects on ethanol absorption, and hypoglycemic activity of escins Ia, Ib, IIa, IIb, and IIIa from the seeds of *Aesculus hippocastanum* L

AU Yoshikawa, Masayuki; Murakami, Toshiyuki; Matsuda, Hisashi; Yamahara, Johji; Murakami, Nobutoshi; Kitagawa, Isao

CS Kyoto Pharmaceutical Univ., Kyoto, 607, Japan

SO Chemical & Pharmaceutical Bulletin (1996), 44(8), 1454-1464

CODEN: CPBTAL; ISSN: 0009-2363

PB Pharmaceutical Society of Japan

DT Journal

LA English

AB Five bioactive triterpene oligoglycosides named escins Ia, Ib, IIa, IIb, and IIIa were isolated from the seeds of horse chestnut tree, *Aesculus hippocastanum* L. (Hippocastanaceae). The chemical structures of escins Ia, Ib, IIa, IIb, and IIIa were determined on the basis of chemical and physicochem.

evidence, which included selective cleavage of the glucuronide linkage using photochem. reaction and lead tetraacetate decarboxylation reaction. Escins Ia, Ib, IIa, and IIb were found to exhibit an ethanol absorption-inhibitory effect and hypoglycemic activity in the oral glucose tolerance test in rats. Some structure-activity relationships are reported.

IT 13844-01-4P, Barringtogenol C

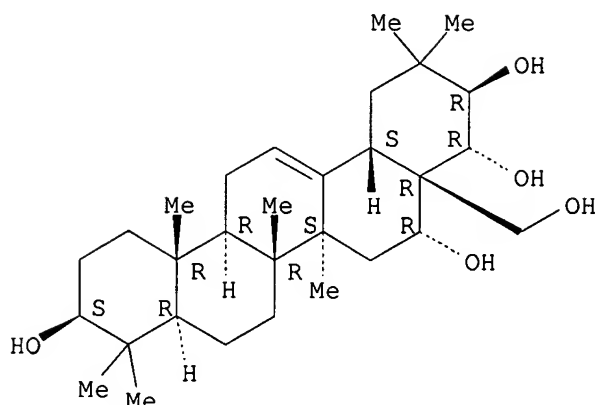
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reactions of intermediates in structure elucidation of escins from *Aesculus hippocastanum*)

RN 13844-01-4 HCAPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 6 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:466649 HCAPLUS

DN 125:185760

TI Anti-inflammatory and analgesic activity of *Baccharis trimera*.  
Identification of its active constituents

AU Gene, Rosa M.; Cartana, Carme; Adzet, Tomas; Marin, Esther; Parella, Teodor; Canigueral, Salvador

CS Fac. Farmacia, Univ. Barcelona, Barcelona, E-08028, Spain

SO *Planta Medica* (1996), 62(3), 232-235

CODEN: PLMEAA; ISSN: 0032-0943

PB Thieme

DT Journal

LA English

AB The butanolic fraction (BT-II) derived from the aqueous crude extract was prepared

from aerial parts of *Baccharis trimera* and assessed in anti-inflammatory, analgesia, and ulcerogenesis models. I.p. pretreatment with lyophilized BT-II, at doses ranging from 40 - 100 mg/kg, markedly inhibited carrageenan- and dextran-induced inflammation (70.4-90.8% and 25.7-71.3%, resp.) and weakly decreased C16-paf- and arachidonic acid-induced swelling (24.9-36.7 and 0-30.6%, resp.). No effect was observed, at the same doses, on zymosan-induced edema. The i.p. examination indicates that the anti-phlogistic action of BT-II was not due to an irritating effect at the injection site. Besides, BT-II reduced abdominal constrictions in mice following injection of acetic acid: at 50 mg/kg, it gave 67.4% inhibition and, at 100 mg/kg, 95.1%. The ulcerogenic assay showed that the incidence of ulcers after BT-II i.p. treatment was 2/6 at 50 and 6/6 at 100 mg/kg. Ulcerogenic indexes were 1.3 and 2.7 resp. These results indicate that *B. trimera* shows strong anti-inflammatory and analgesic properties which seem to be due, at least partly, to the inhibition of prostaglandin biosynthesis. The chromatog. separation of BT-II monitored by bio-assay (carrageenan-induced edema test in mice) was carried out. The active constituents were found to be mainly saponins in which echinocystic acid (or its enantiomer) is the major aglycon, and also rutin.

IT 510-30-5, Echinocystic acid

RL: BAC (Biological activity or effector, except adverse); BOC

(Biological occurrence); BSU (Biological study, unclassified); THU

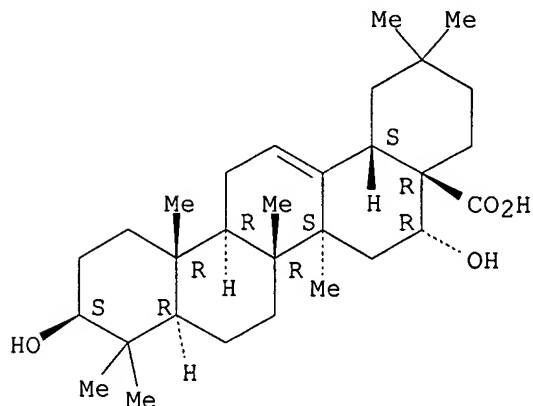
(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES

(Uses)

(antiinflammatory and analgesic activity of *Baccharis trimera* fraction)

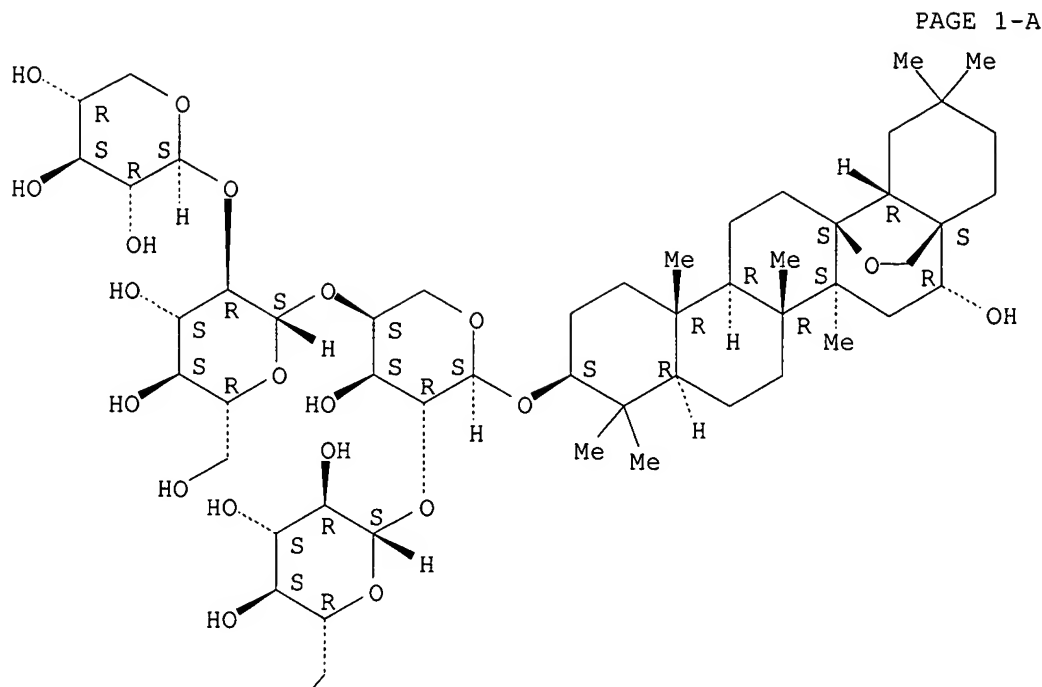
RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 7 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:1004428 HCAPLUS  
 DN 124:82092  
 TI Phospholipase D inhibitors from a Myrsine species.  
 AU Hegde, V. R.; Silver, J.; Patel, M. G.; Bryant, R.; Pai, J.; Das, P. R.;  
 Puar, M. S.; Cox, P. A.  
 CS Schering-Plough Res. Inst., Kenilworth, NJ, 07033, USA  
 SO Journal of Natural Products (1995), 58(10), 1492-7  
 CODEN: JNPRDF; ISSN: 0163-3864  
 PB American Society of Pharmacognosy  
 DT Journal  
 LA English  
 AB The phospholipase D-inhibitory activity of a methanol extract from the leaves  
 of *M. australis*, has been attributed to two new saponins (I) and (II). I  
 was assigned as 3-O- $\{\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-  
 glucopyranosyl-(1 $\rightarrow$ 4)-[O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]-  
 $\alpha$ -L-arabinosyl}-16 $\alpha$ -hydroxy-13 $\beta$ ,28-epoxyoleanane and II  
 as 3 $\beta$ -O- $\{\beta$ -D-rhamnopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-  
 glucopyranosyl-(1 $\rightarrow$ 4)-[O- $\beta$ -D-glucopyranosyl]- $\alpha$ -L-  
 arabinopyranosyl}-16 $\alpha$ -hydroxy-13 $\beta$ ,28-epoxyoleanane. I and II  
 showed IC<sub>50</sub> values of 3 and 2  $\mu$ M, resp., vs. phorbol  
 12-myristate-13-acetate-stimulated phospholipase D in human promyelocytic  
 leukemic (HL-60) cells. I and II also inhibited fMLP (formyl-Met-Leu-Phe)-  
 stimulated phospholipase D with IC<sub>50</sub> values of 8 and 24  $\mu$ M, resp.  
 IT 126882-54-0P  
 RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL  
 (Biological study); PREP (Preparation); USES (Uses)  
 (phospholipase D inhibitors from *Myrsine australis*)  
 RN 126882-54-0 HCAPLUS  
 CN  $\alpha$ -L-Arabinopyranoside, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16-  
 hydroxyoleanan-3-yl O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O-[O- $\beta$ -D-  
 xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)]- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

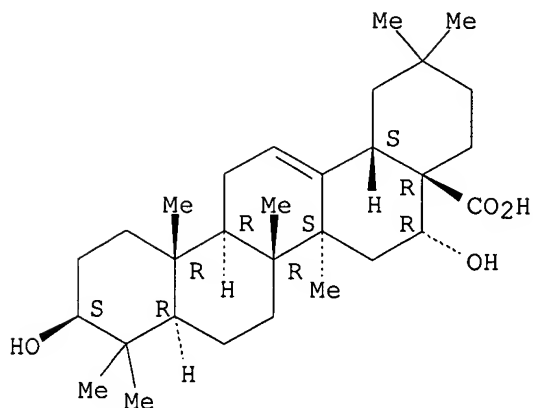


PAGE 2-A



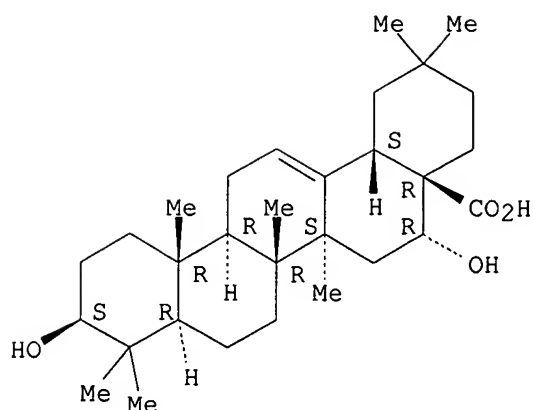
L64 ANSWER 8 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:904768 HCAPLUS  
 DN 123:334728  
 TI Triterpenoid antiviral activity against influenza A and B viruses  
 AU Platanov, V. G.; Zorina, A. D.; Gordon, M. A.; Chizhov, N. P.; Balykina, L. V.; Mikhailov, Yu. D.; Ivanen, D. R.; Kvi, Tran Kim; Shavva, A. G.  
 CS Nauchno-Issled. Inst. Grippa, Russia  
 SO Khimiko-Farmatsevticheskii Zhurnal (1995), 29(2), 42-6  
 CODEN: KHFZAN; ISSN: 0023-1134  
 PB Meditsina  
 DT Journal  
 LA Russian  
 AB Triterpenoids, derivs. of oleanane, ursane, lupane, dammarane were isolated or synthesized and tested for antiviral activity against influenza A and B viruses. Structure-activity relationship is discussed.  
 IT 510-30-5, Echinocystic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (triterpenoid antiviral activity against influenza and B viruses)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



- L64 ANSWER 9 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:891611 HCAPLUS  
 DN 124:233  
 TI Anti-AIDS agents, 21. Triterpenoid saponins as anti-HIV principles from fruits of *Gleditsia japonica* and *Gymnocladus chinensis*, and a structure-activity correlation  
 AU Konoshima, Takao; Yasuda, Ichiro; Kashiwada, Yoshiki; Cosentino, L. Mark; Lee, Kuo-Hsiung  
 CS Kyoto Pharmaceutical Univ., Kyoto, 607, Japan  
 SO Journal of Natural Products (1995), 58(9), 1372-7  
 CODEN: JNPRDF; ISSN: 0163-3864  
 PB American Society of Pharmacognosy  
 DT Journal  
 LA English  
 AB *Gleditsia* saponin C [1] and *Gymnocladus* saponin G [2] were isolated from *Gleditsia japonica* and *Gymnocladus chinensis*, resp., as anti-HIV principles. Compds. 1 and 2 demonstrated inhibitory effects against HIV replication in H-9 cells with EC50 values of 1.1 and 2.7  $\mu$ M, resp. Evaluation of the anti-HIV activities of the prosapogenins of 1 and 2 suggested that the unusual monoterpenyl moieties are essential for their anti-HIV activity. Derivs. of echinocystic acid, the aglycon of compound 1, were also prepared and evaluated for inhibitory activity against HIV replication. 3,16-Di-O-acetylinocystic acid was shown to be an anti-HIV agent with an EC50 value of 2.3  $\mu$ M.  
 IT 510-30-5P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (structure of triterpenoid saponins from fruits of *Gleditsia japonica* and *Gymnocladus chinensis* as anti-HIV principles)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

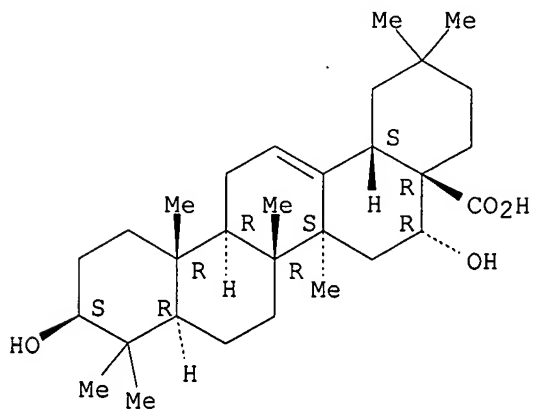


IT 510-30-5DP, Echinocystic acid, derivs.  
RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); PNU (Preparation, unclassified); PRP  
(Properties); THU (Therapeutic use); BIOL (Biological study);  
PREP (Preparation); USES (Uses)  
(structure of triterpenoid saponins from fruits of *Gleditsia japonica*  
and *Gymnocladus chinensis* as anti-HIV principles)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 10 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
AN 1995:824313 HCAPLUS  
DN 123:275927  
TI Some pharmacological studies of ardisiacrispin B, an utero-contracting  
saponin, isolated from *Ardisia crispa*  
AU Jansakul, C.  
CS Faculty Science, Prince Songkla University, Hat-Yai, Thailand  
SO Journal of the Science Society of Thailand (1995), 21(1), 11-26  
CODEN: VKSTDB; ISSN: 0303-8122  
PB Science Society of Thailand  
DT Journal



LA English

AB The present study aimed to characterize the pharmacol. action of the ardisiacrispin B. Studies were performed on in vitro preps. of uterine smooth muscle, small intestine and thoracic aorta (vascular smooth muscle) obtained from female rats in estrus. Dose-response curves (DR-curve) to ardisiacrispin B, prostaglandin E2 derivative (Nalador), oxytocin and acetylcholine chloride were obtained. The possible involvement of prostaglandin synthesis in the utero-contracting activity of ardisiacrispin B was explored by investigation of the DR-curve to ardisiacrispin B in the presence of  $10^{-6}$  M indomethacin, a cyclo-oxygenase inhibitor. The local effects of the compound on uterine contractility and cervix softening were also studied in situ and in vitro resp. Ardisiacrispin B caused dose-dependent contraction of uterine smooth muscle, small intestine and thoracic aortae in a similar pattern to prostaglandin E2 derivative. Oxytocin also caused uterine strip contraction but had no effect on small intestine. Acetylcholine caused uterine and small intestine contraction in a different manner from that obtained with ardisiacrispin B. However, the presence of indomethacin did not alter the DR-curve to ardisiacrispin B of uterine smooth muscle. In the in situ expts., intra-uterine injections of ardisiacrispin B caused uterine contraction in a dose-dependent manner similar to those obtained from prostaglandin E2 with no changes in mean arterial blood pressure, except that the highest concentration of ardisiacrispin B (6mg/mL) caused lowering blood

pressure in some animals. There were no signs of cervix softening after intra-uterine administration of either ardisiacrispin B or prostaglandin E2, when compared with intra-uterine injections of saline. These results suggest that ardisiacrispin B may exert a prostaglandin E2-like effect which may act at the prostaglandin E2-receptor but not by stimulation or enhancement of prostaglandin synthesis.

IT 112766-96-8, Ardisiacrispin B

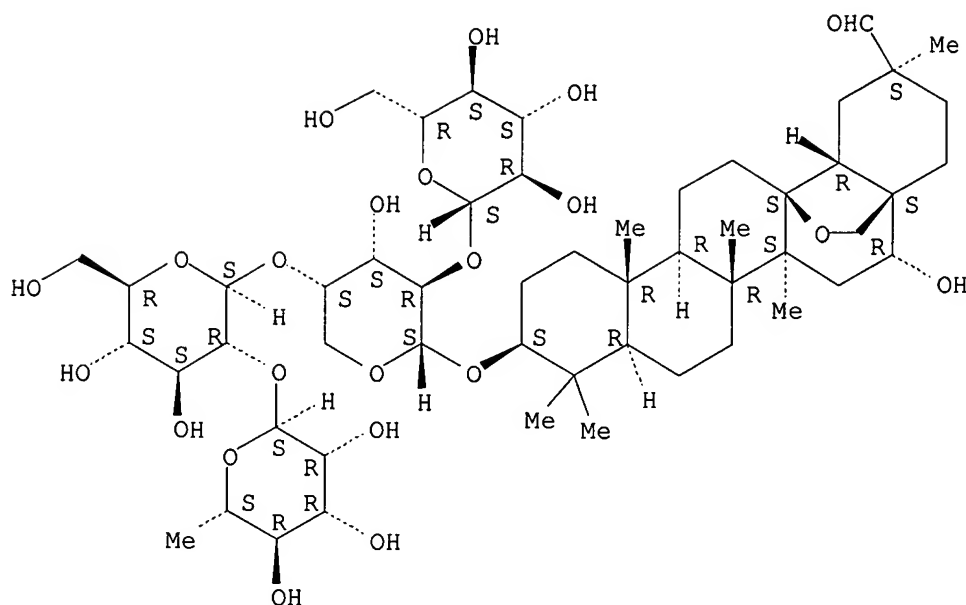
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(pharmacol. studies of ardisiacrispin B as utero-contracting saponin isolated from *Ardisia crispa* in relation to cervix softening)

RN 112766-96-8 HCAPLUS

CN Oleanan-29-al, 3-[(O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 $\beta$ ,16 $\alpha$ ,20 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 11 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:441024 HCAPLUS

DN 122:286616

TI Triterpenoid saponins from *Ardisia crenata* and their inhibitory activity on cAMP phosphodiesterase

AU Jia, Zhonghua; Koike, Kazuo; Nikaido, Tamotsu; Ohmoto, Taichi; Ni, Muyun

CS Dep. Pharmacognosy, Sch. Pharm. Sci., Toho Univ., Chiba, 274, Japan

SO Chemical & Pharmaceutical Bulletin (1994), 42(11), 2309-14

CODEN: CPBTAL; ISSN: 0009-2363

PB Pharmaceutical Society of Japan

DT Journal

LA English

AB Two novel triterpenoid saponins, ardisicrenoside C [ $3\beta$ -O-( $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl)-16 $\alpha$ ,28-dihydroxy-olean-12-en-30-oic acid 30-O- $\beta$ -D-glucopyranosyl ester] and ardisicrenoside D [ $3\beta$ -O-( $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl)-16 $\alpha$ ,28-dihydroxy-olean-12-en-30-oic acid 30-O- $\beta$ -D-glucopyranosyl ester] were isolated from the roots of *Ardisia crenata*. Structure assignments are based on spectroscopic data including 2D-NMR (correlation spectroscopy (COSY), homonuclear Hartmann-Hahn spectroscopy (HOHAHA), heteronuclear correlated spectroscopy (HETCOR), heteronuclear multiple bond correlation (HMBC) and rotating frame NOE spectroscopy (ROESY)) expts. and some chemical reactions. In addition, the isolated saponins along with their prosapogenins and sapogenins have been evaluated for their inhibitory activity on cAMP phosphodiesterase as a primary screening test for new medicinal compds.

IT 23643-61-0 112766-96-8

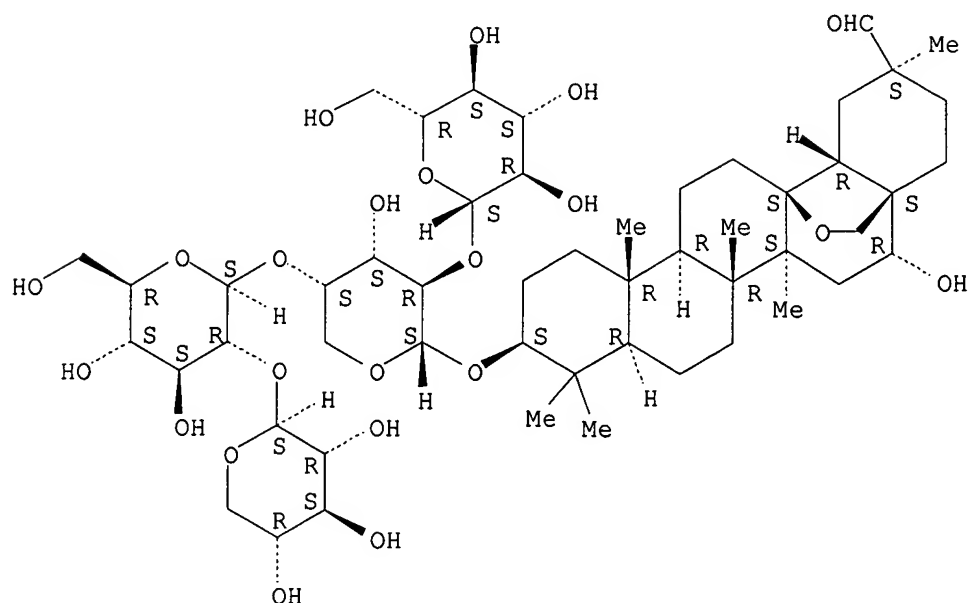
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (cAMP phosphodiesterase inhibitory activity of)

RN 23643-61-0 HCAPLUS

CN Oleanan-29-al, 13,28-epoxy-3-[(O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O-[O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)]-

$\alpha$ -L-arabinopyranosyl)oxy]-16-hydroxy-, (3 $\beta$ ,16 $\alpha$ ,20 $\beta$ )-  
(9CI) (CA INDEX NAME)

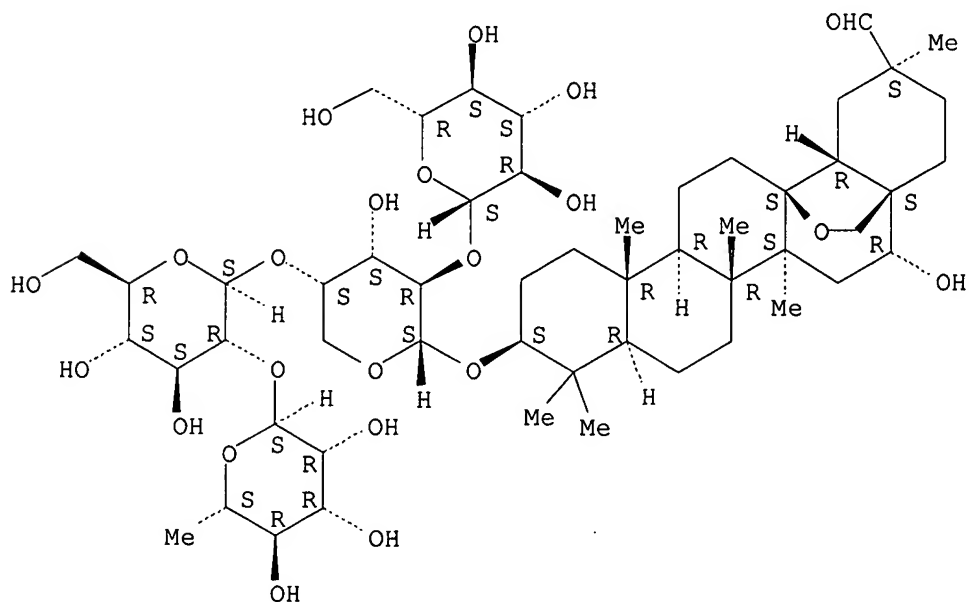
Absolute stereochemistry.



RN 112766-96-8 HCAPLUS

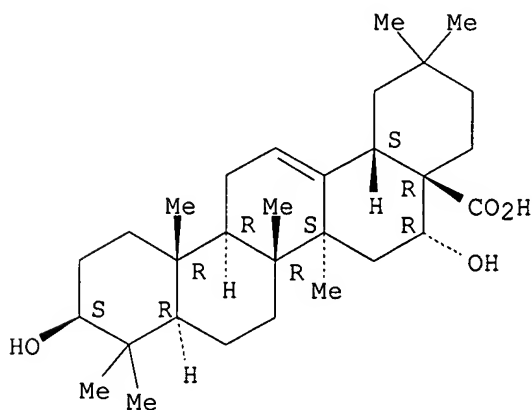
CN Oleanan-29-al, 3-[(O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 $\beta$ ,16 $\alpha$ ,20 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 12 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:274565 HCAPLUS  
 DN 122:128565  
 TI Anti-inflammatory triterpene saponins of *Pithecellobium dulce*:  
 characterization of an echinocystic acid bisdesmoside  
 AU Sahu, Niranjana P.; Mahato, Shashi B.  
 CS Indian Institute of Chemical Biology, Calcutta, 700 032, India  
 SO *Phytochemistry* (1994), 37(5), 1425-7  
 CODEN: PYTCAS; ISSN: 0031-9422  
 PB Elsevier  
 DT Journal  
 LA English  
 AB A new bisdesmodic triterpenoid saponin, dulcin was isolated from the seeds  
 of *Pithecellobium dulce* and was identified as 3-O-[ $\beta$ -D-glucopyranosyl  
 (1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl]-28-O-[ $\beta$ -D-xylopyranosyl  
 (1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl]-echinocystic acid. The known  
 oleanolic acid saponin PE, oleanolic acid 3-O- $\beta$ -D-glucopyranosyl  
 9 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranoside was also obtained. The  
 structural features were elucidated by a combination of spectroscopic  
 methods and some chemical transformations.  
 IT 510-30-5, Echinocystic acid  
 RL: PRP (Properties)  
 (preparation of)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 13 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1992:524048 HCAPLUS  
 DN 117:124048  
 TI HIV-1 and HIV-2 reverse transcriptases: a comparative study of  
 sensitivity to inhibition by selected natural products  
 AU Tan, Ghee T.; Miller, James F.; Kinghorn, A. Douglas; Hughes, Stephen H.;  
 Pezzuto, John M.  
 CS Coll. Pharm., Univ. Illinois, Chicago, IL, USA  
 SO *Biochemical and Biophysical Research Communications* (1992),  
 185(1), 370-8  
 CODEN: BBRCA9; ISSN: 0006-291X  
 DT Journal  
 LA English

AB One hundred and fifty six pure natural products, which had previously been tested against HIV-1 reverse transcriptase, were evaluated for HIV-2 reverse transcriptase inhibitory activity. Compds. that lacked effect in the HIV-1 reverse transcriptase system were found also to be inactive against HIV-2 reverse transcriptase. However, compds. belonging to the benzophenanthridine and protoberberine classes of alkaloids, certain flavanoids, the iridoid, fulvoplumierin, and the ansamycin antibiotic, daunomycin, exhibited similar potencies in both enzyme systems. In contrast, HIV-2 reverse transcriptase was observed to be four-fold more sensitive toward the inhibitory effects of the ipecac alkaloids, O-methylpsychotrine sulfate heptahydrate and psychotrine dihydrogen oxalate. Such differences in susceptibilities to inhibitors may indicate subtle dissimilarities in enzyme structure and function.

IT 465-95-2

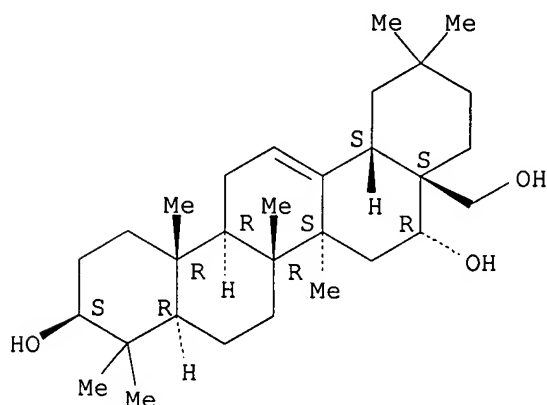
RL: BIOL (Biological study)

(human immunodeficiency virus 1 and 2 reverse transcriptase response to)

RN 465-95-2 HCAPLUS

CN Olean-12-ene-3,16,28-triol, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 14 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1992:414282 HCAPLUS

DN 117:14282

TI Triterpene glycosides of two Far Eastern species of Codonopsis Wall. genus

AU Gorovoi, P. G.; Alad'ina, N. G.

CS Tikhookean. inst. Bioorg. Khim., Vladivostok, USSR

SO Rastitel'nye Resursy (1991), 27(3), 91-3

CODEN: RRESA8; ISSN: 0033-9946

DT Journal

LA Russian

AB Triterpene glycosides are the active principle of the Codonopsis root Chinese drug of tonic and stimulating action. Search of prospective sources of this drug gave a yield 0.0045 and 0.0035 air-dried weight% triterpene glycosides from *C. lanceolata* and *C. ussuriensis* roots, resp. *C. lanceolata* contained 2 glycosides; codonoside B was the major glycoside and its aglycon, echinocystic acid, was found also in *C. ussuriensis* which contained 3 glycosides in approx. equal amts.

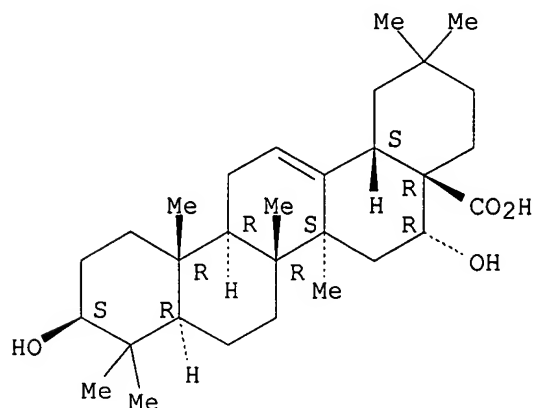
IT 510-30-5, Echinocystic acid

RL: BIOL (Biological study)

(of Codonopsis lanceolata and *C. ussuriensis* roots, medicinal uses in

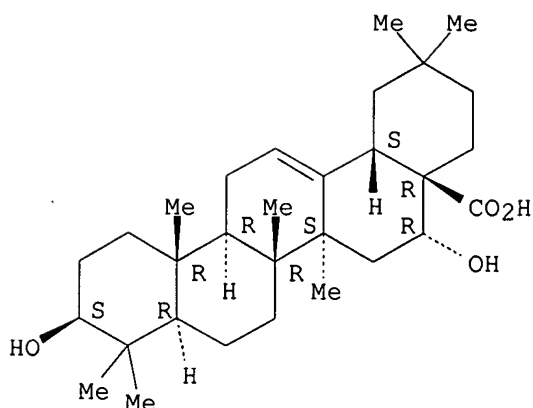
relation to)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 15 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1992:277 HCAPLUS  
 DN 116:277  
 TI Sterol and triterpene derivatives from plants inhibit the effects of a tumor promoter, and sitosterol and betulinic acid inhibit tumor formation in mouse skin two-stage carcinogenesis  
 AU Yasukawa, Ken; Takido, M.; Matsumoto, T.; Takeuchi, M.; Nakagawa, S.  
 CS Coll. Pharm., Nihon Univ., Funabashi, 274, Japan  
 SO Oncology (1991), 48(1), 72-6  
 CODEN: ONCOBS; ISSN: 0030-2414  
 DT Journal  
 LA English  
 AB A single topical application of 1  $\mu$ g 12-O-tetradecanoylphorbol-13-acetate (TPA) to the ears of mice induced edema. This TPA-induced inflammation was inhibited by 4-methylsterol and triterpene derivs. with ED50 values of 0.1-3  $\mu$ mol. Phytosterols had only slight inhibitor effects. Application of 5  $\mu$ g TPA to mouse skin rapidly caused accumulation of ornithine decarboxylase (ODC). Sitosterol and lupane-type triterpene derivs. markedly inhibited this TPA-induced ODC accumulation. Betulinic acid (5  $\mu$ mol) markedly inhibited the promoting effect of 2.5  $\mu$ g TPA applied twice weekly on skin tumor formation in mice initiated with 50  $\mu$ g 7,12-dimethylbenz[a]anthracene, and 5  $\mu$ mol sitosterol caused slight suppression. Thus, the inhibitory effects of sterol and triterpene derivs. on TPA-induced inflammation roughly paralleled their inhibitory activities against tumor promotion.  
 IT 510-30-5, Echinocystic acid  
 RL: PRP (Properties)  
 (antitumor and anti-inflammatory effects of, on skin)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 16 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1991:224321 HCAPLUS

DN 114:224321

TI Evaluation of natural products as inhibitors of human immunodeficiency virus type 1 (HIV-1) reverse transcriptase

AU Tan, Ghee T.; Pezzuto, John M.; Kinghorn, A. Douglas; Hughes, Stephen H.

CS Coll. Pharm., Univ. Illinois, Chicago, IL, 60612, USA

SO Journal of Natural Products (1991), 54(1), 143-54

CODEN: JNPRDF; ISSN: 0163-3864

DT Journal

LA English

AB Inhibition of human immunodeficiency virus reverse transcriptase is currently considered a useful approach in the prophylaxis and intervention of acquired immunodeficiency syndrome (AIDS), and natural products have not been extensively explored as inhibitors of this enzyme. The reverse transcriptase assay developed for the detection of the enzyme in virions, involving poly rA.oligo dT and radio and radiolabeled thymidine 5'-triphosphate (TTP), can be applied as a simple method for screening the human immunodeficiency virus type 1 reverse transcriptase (HIV-1 RT) inhibitory potential of natural products; 156 pure natural products have been examined in this system. Benzophenanthridine alkaloids such as fagarine chloride (I) and nitidine chloride, which are known inhibitors of avian myeloblastosis virus reverse transcriptase, demonstrated potent activity in the HIV-1 RT system, and T(IC<sub>50</sub> 10 µg/mL) was adopted as a pos.-control substance. Addnl. inhibitors found were columbamine iodide and other protoberberine alkaloids, the isoquinoline alkaloid O-methylpsychotrine sulfate, and the iridoid fulvoplumierin. A number of indolizidine, pyrrolizidine, quinolizidine, indole, and other alkaloids, as well as compds. of many other structural classes, were found to be inactive. A total of 100 plant exts. have also been evaluated, and 15 of these exts. showed significant inhibitory activity. Because tannins and other polyphenolic compds. are potent reverse transcriptase inhibitors, methods were evaluated for the removal of these from plant exts. prior to testing. Polyphenolic compds. were found to be responsible for the activity demonstrated by the majority of plant exts. After appropriate tannin removal procedures were established, the bioassay system was shown to be generally applicable to both pure natural products and plant exts. The method also proved useful in directing an isolation procedure with *Plumeria rubra* to yield fulvoplumierin as an active compound (IC<sub>50</sub> 45 µg/mL).

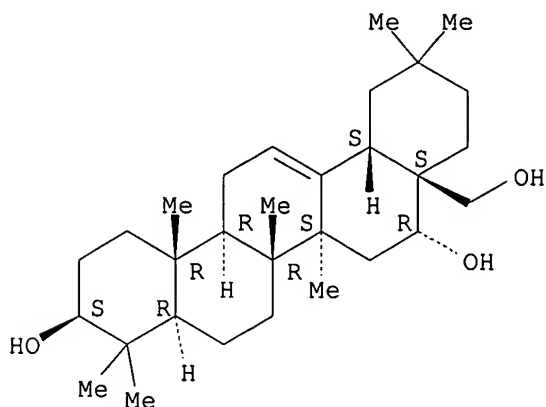
IT 465-95-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(reverse transcriptase of human immunodeficiency virus type 1 inhibition by)

RN 465-95-2 HCAPLUS

CN Olean-12-ene-3,16,28-triol, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 17 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:491423 HCAPLUS

DN 113:91423

TI Dental caries prevention by traditional medicines. XII. Effect of components of *Ganoderma lucidum* on glucosyltransferase from *Streptococcus mutans*

AU Hada, Sumitra; Hattori, Masao; Namba, Tsuneo

CS Res. Inst. Wakan-Yaku, Toyama Med. Pharm. Univ., Toyama, 930-01, Japan

SO Wakan Iyaku Gakkaishi (1989), 6(2), 100-7

CODEN: WIGAES; ISSN: 0289-730X

DT Journal

LA English

AB By a bioassay-directed fractionation of an extract of the fruiting bodies of *G. lucidum*, which was previously shown to have in vitro anti-plaque action, ganoderic acids S1 and C2 were identified as inhibitory substances against glucosyltransferase (GTF) from a primary cariogenic bacterium, *S. mutans*. In addition, effect of some triterpenes and saponins on GTF was investigated.

IT 510-30-5, Echinocystic acid

RL: BIOL (Biological study)

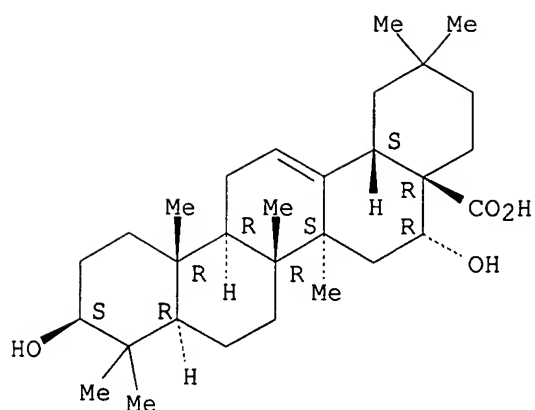
(glucosyltransferase of *Streptococcus mutans* response to, tooth caries prevention in relation to)

RN 510-30-5 HCAPLUS

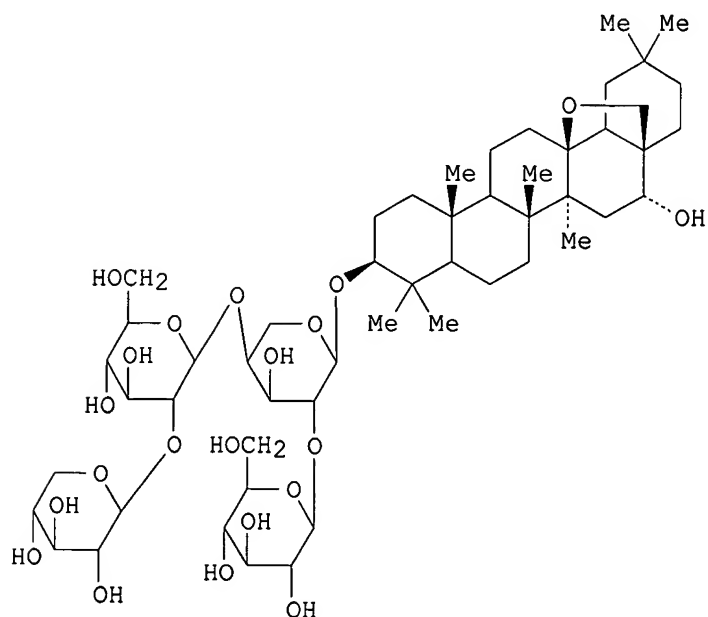
CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).





L64 ANSWER 18 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1990:195234 HCAPLUS  
 DN 112:195234  
 TI Molluscicidal triterpenoidal saponin from *Lysimachia sikokiana*  
 AU Kohda, Hiroshi; Takeda, Osamu; Tanaka, Seiji  
 CS Sch. Med., Hiroshima Univ., Hiroshima, 734, Japan  
 SO Chemical & Pharmaceutical Bulletin (1989), 37(12), 3304-5  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA English  
 GI



I

AB The main molluscicidal activity of the methanol extract of *L. sikokiana* is due to several triterpenic saponins called sakuraso-saponins. The most active component was isolated from the aerial parts and elucidated as

3-O- $\beta$ -xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -glucopyranosyl-(1 $\rightarrow$ 4)-  
 [[ $\beta$ -glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -arabinopyranosyl  
 protoprimalagenin A (I), named lysikoianoside 1, on the basis of <sup>1</sup>H- and  
<sup>13</sup>C-NMR spectral data and methylation anal. results.

IT 126882-54-0, Lysikokianoside 1

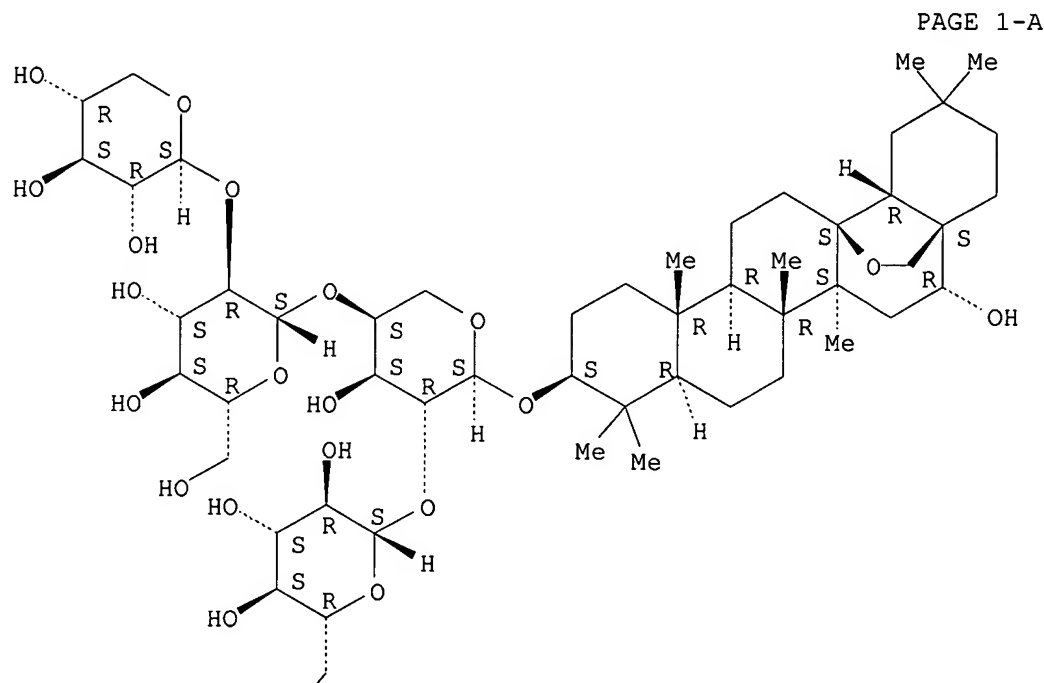
RL: BIOL (Biological study)

(from *Lysimachia sikokiana*, isolation and structure of)

RN 126882-54-0 HCAPLUS

CN  $\alpha$ -L-Arabinopyranoside, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16-  
 hydroxyoleanan-3-yl O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O-[O- $\beta$ -D-  
 xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)]- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



PAGE 2-A

L64 ANSWER 19 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1989:587270 HCAPLUS  
 DN 111:187270  
 TI Effect of a series of saponins extracted from tropical African plants on  
 the release of luteinizing hormone by hypophyseal cells in culture  
 AU El Izzi, Asmahan; Duval, Jacques; Delaude, Clement  
 CS Lab. Endocrinol. Mol., Rennes, 35042, Fr.  
 SO Bulletin de la Societe Royale des Sciences de Liege (1989),  
 58(2), 53-6

CODEN: BSRSA6; ISSN: 0037-9565

DT Journal

LA French

AB Saponins extracted from African plants (*Petersianthus macrocarpus*, *Albizzia adianthifolia*, *Milletia laurentii*, *Olex obtusifolia*, *Atroxima afzeliana*, *Securidaca longepedunculata*, *Hovenia dulcis*, *Harpullia cupanoides*, *Majidea fosteri*) were compared with LH-releasing hormone ( $10^{-7}M$ ) in vitro for their ability to release LH from cultured rat hypophyseal cells. The cells were exposed to 10 or 30  $\mu g$  saponins/mL for 1 h. Saponins from *H. cupanoides* and *M. fosteri* (containing the sapogenin aglycons camelliagenin A, barrigenol A1, and jegosapogenol) were the most active, saponins from *P. macrocarpus*, *A. adianthifolia*, and *S. longepedunculata* (containing the aglycons acacic acid, presenegenin, and others) were less active, and the remaining saponins had little activity.

IT 510-30-5, Echinocystic acid 13844-01-4, Jegosapogenol

53227-91-1, Camelliagenin A

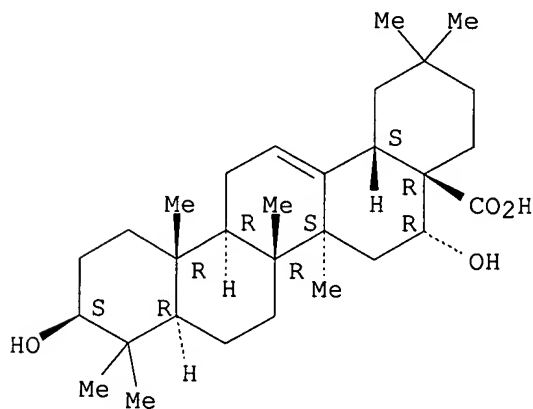
RL: BIOL (Biological study)

(as saponin aglycon from African plants, LH release by hypophyseal cells response to)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

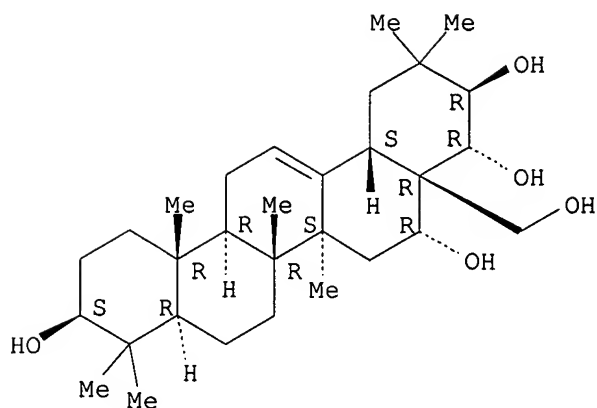
Absolute stereochemistry. Rotation (+).



RN 13844-01-4 HCAPLUS

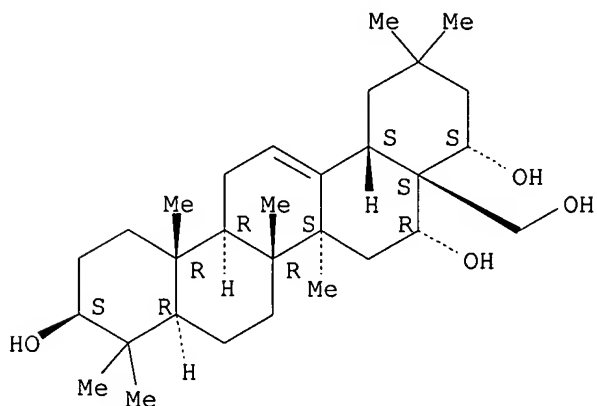
CN Olean-12-ene-3,16,21,22,28-pentol, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 53227-91-1 HCAPLUS  
 CN Olean-12-ene-3,16,22,28-tetrol, (3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 20 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1988:562908 HCAPLUS  
 DN 109:162908  
 TI Inhibitory effects of 12-O-tetradecanoylphorbol-13-acetate- and teleocidin  
 B-induced Epstein-Barr virus by saponins and its related compounds  
 AU Tokuda, Harukuni; Konoshima, Takao; Kozuka, Mutsuo; Kimura, Takeatsu  
 CS Fac. Med., Kyoto Univ., Kyoto, 606, Japan  
 SO Cancer Letters (Shannon, Ireland) (1988), 40(3), 309-17  
 CODEN: CALEDQ; ISSN: 0304-3835  
 DT Journal  
 LA English  
 AB The inhibitory effects of monoterpene and triterpene glycosides on the  
 activation of Epstein-Barr virus (EBV) by 12-O-tetradecanoylphorbol-13-  
 acetate (TPA) and teleocidin B were studied in Raji cells. Concomitant  
 treatment of Raji cells with TPA or Teleocidin B and the glycosides showed  
 the inhibition of EBV activation. In vitro structure-activity studies  
 were conducted on a variety of triterpene glycosides having a 1-sugar  
 chain (monodesmoside), a 2-sugar chain (bidesmoside), and an acyl

side-chain. Among these glycosides, triterpene 3-O-glycosides and acylated saponins effectively inhibited EBV activation; therefore, the sugar chain at C-3 of the triterpene and(or) the acyl side-chain were determined to be essential for the inhibitory activities in this test system.

IT 510-30-5

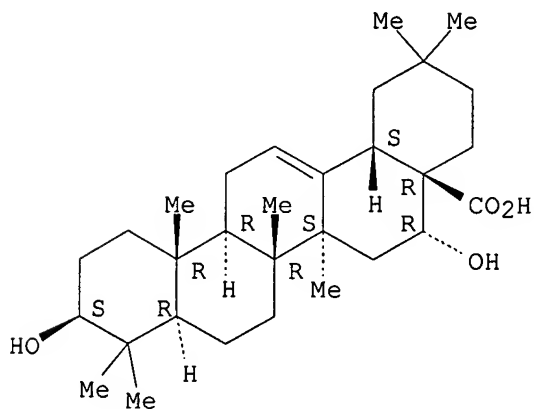
RL: BIOL (Biological study)

(Epstein-Barr virus activation inhibition by, structure in relation to)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 21 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1988:179614 HCAPLUS

DN 108:179614

TI Pharmacological investigation of a glycosidal fraction isolated from *Maesa chisia* D. Don var. *angustifolia* Hook F and Th

AU Gomes, Aparna; Mohan Sharma, Radha; Ghatak, B. J. Ray

CS Dep. New Drug Dev., Indian Inst. Chem. Biol., Calcutta, 700 032, India

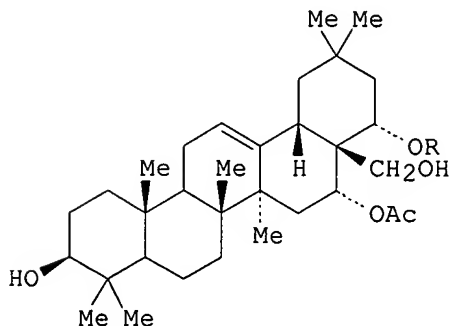
SO Indian Journal of Experimental Biology (1987), 25(12), 826-31

CODEN: IJEBA6; ISSN: 0019-5189

DT Journal

LA English

GI



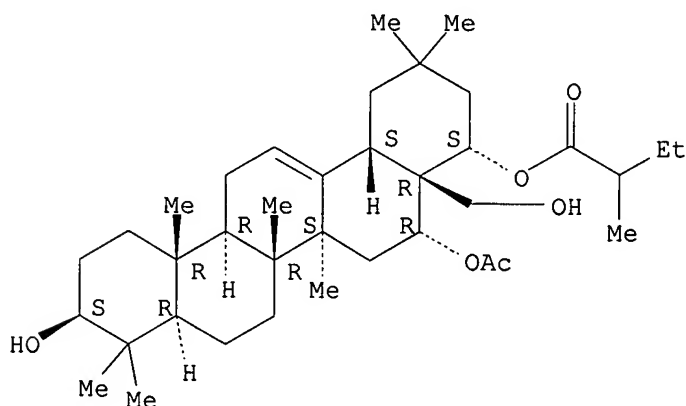
I, R=COCMe=CHMe

II, R=COCHMeEt

IT 111508-74-8

RN 111508-74-8 HCAPLUS

Absolute stereochemistry.



AN 1988:91689 HCAPLUS

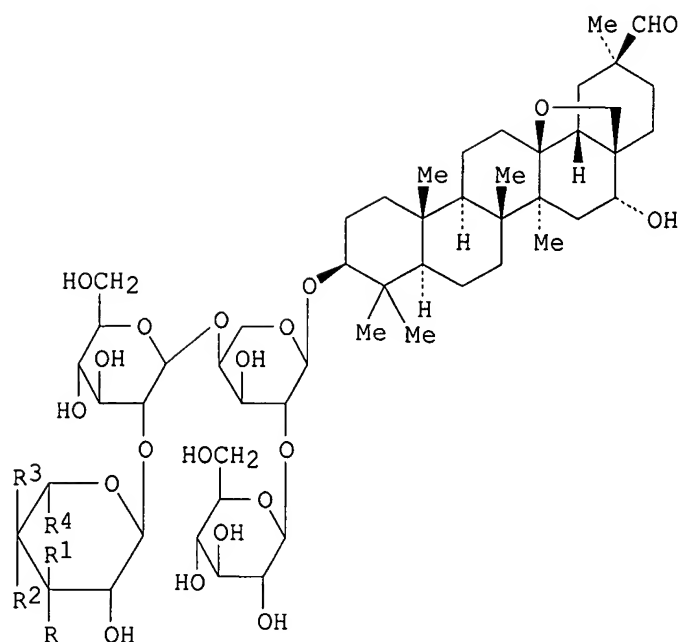
TI Ardisiacrispin A and B, two utero-contracting saponins from *Ardisia crispa*

CS Dep. Pharmacogn., Univ. Uppsala, Uppsala, S-751 23, Swed.

CODEN: PLMEAA; ISSN: 0032-0943

LA English

GI


$$\text{I, } R=R^3=R^4=H, \quad R^1=R^2=OH$$

II,  $R=R^3=OH$ ,  $R^1=R^2=H$ ,  $R^4=Me$

AB The main utero-contracting activity of an aqueous extract of *Ardisia crispa* is due to 2 new triterpenic saponins called ardisiacrispin A (I) and B (II), resp. The saponins were isolated by extraction with butanol, followed by chromatog. on silica gel columns. Final purification was obtained by reversed phase HPLC. <sup>13</sup>C-NMR identified the aglycon of both saponins as cyclamiretin A. The structure of the ardisiacrispins was deduced by sugar and methylation anal. in combination with <sup>1</sup>H- and <sup>13</sup>C-NMR spectral data.

I is 3 $\beta$ -O-[- $\beta$ -D-xylopyranosyl-(1  $\rightarrow$  2)-O- $\beta$ -D-glucopyranosyl-(1  $\rightarrow$  4)-[O- $\beta$ -D-glucopyranosyl-(1  $\rightarrow$  2)]- $\alpha$ -L-arabinopyranosyl]-16 $\alpha$ -hydroxy-13  $\beta$ ,28-epoxyolean-

30-al. II is 3 $\beta$ -O-[ $\alpha$ -L-rhamnopyranosyl-(1  $\rightarrow$  2)-O- $\beta$ -D-glucopyranosyl-(1  $\rightarrow$  4)-[O- $\beta$ -D-glucopyranosyl-(1  $\rightarrow$  2)]- $\alpha$ -L-arabinopyranosyl]-16 $\alpha$ -hydroxy-13 $\beta$ ,28-epoxyolean-30-al. At a concentration in the bath of 8  $\mu$ g/mL both saponins gave contractive responses of the isolated rat uterus corresponding to 84% of the contraction caused by a standard dose of acetylcholine (0.2  $\mu$ g/mL).

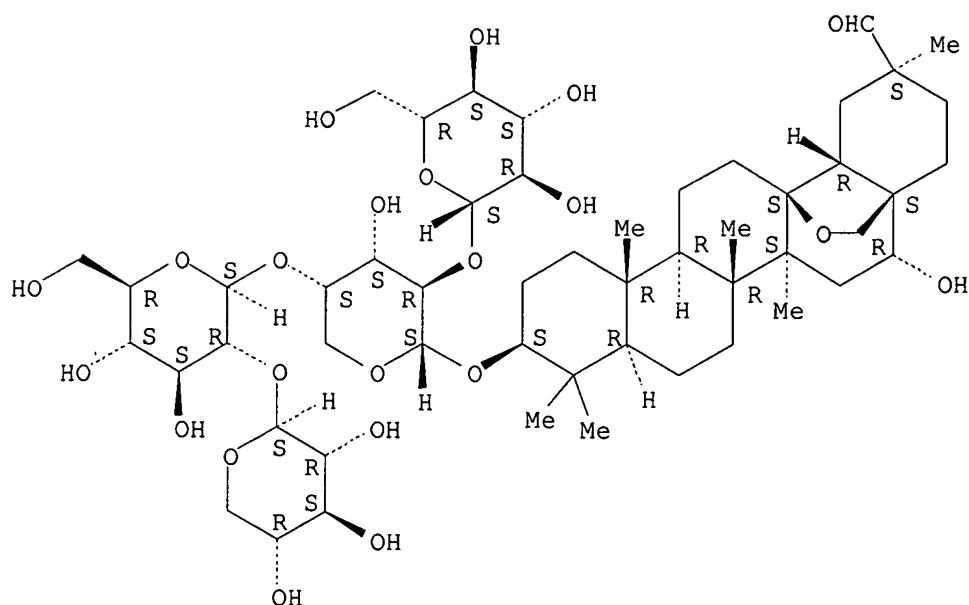
IT 23643-61-0P 112766-96-8P

RL: BAC (Biological activity or effector, except adverse); PUR  
(Purification or recovery); BIOL (Biological study); PREP (Preparation)  
(from *Ardisia crispa*, isolation and structure determination and uterine  
contracting activity of)

RN 23643-61-0 HCAPLUS

CN Oleanan-29-al, 13,28-epoxy-3-[(O-β-D-glucopyranosyl-(1→2)-O-[O-β-D-xylopyranosyl-(1→2)-β-D-glucopyranosyl-(1→4)]-α-L-arabinopyranosyl)oxy]-16-hydroxy-, (3β,16α,20β)-(9CI) (CA INDEX NAME)

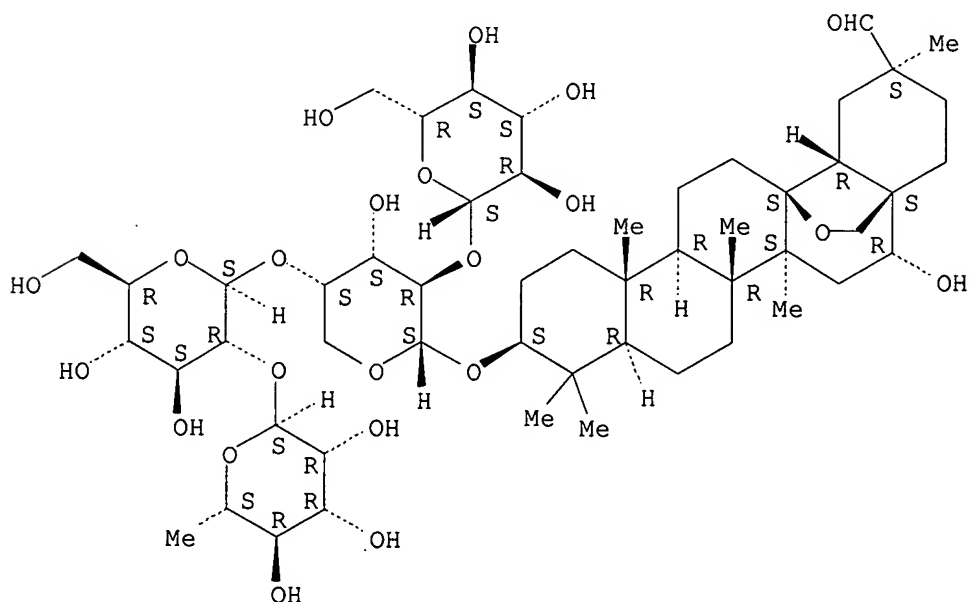
Absolute stereochemistry.



RN 112766-96-8 HCAPLUS

CN Oleanan-29-al, 3-[(O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl)oxy]-13,28-epoxy-16-hydroxy-, (3 $\beta$ ,16 $\alpha$ ,20 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 23 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1987:412737 HCAPLUS

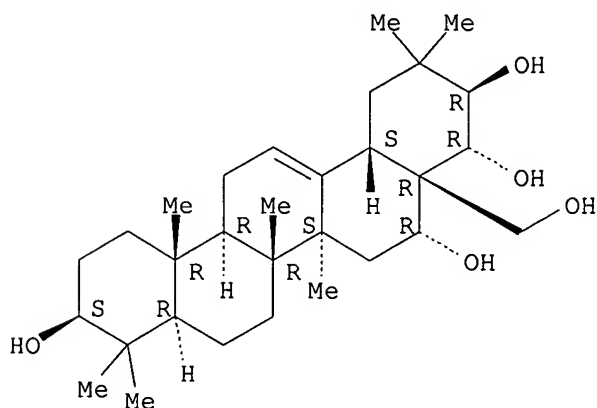
DN 107:12737

TI Triterpenoids of Aesculus indica



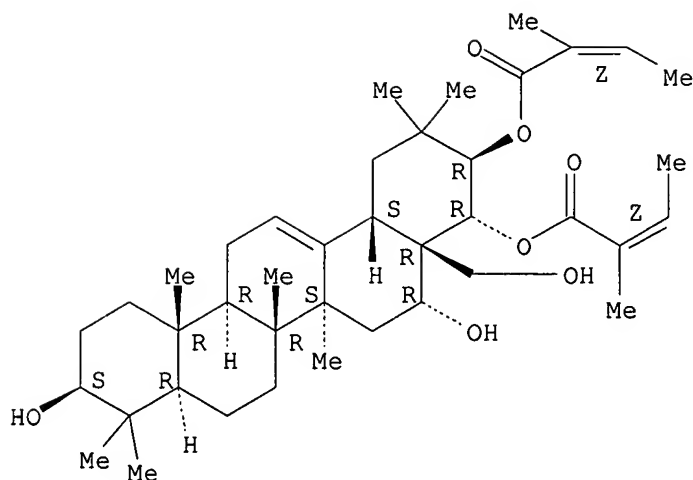
AU Sati, O. P.; Rana, U.  
 CS Dep. Chem., Univ. Garhwal, Srinagar, India  
 SO Pharmazie (1987), 42(2), 141  
 CODEN: PHARAT; ISSN: 0031-7144  
 DT Journal  
 LA English  
 AB 21,22-Diangeleylbarrintogenol C, 21-angeloylbarrintogenol C, and 22-angeloyl R1-barrigenol were isolated from acid hydrolyzates of *A. india* seed saponins and barrintogenol C, aescigenin, and protoaescigenin from the acid or alkaline hydrolyzates.  
 IT **13844-01-4**, Barrintogenol C **92947-99-4**  
 RL: BIOL (Biological study)  
 (of *Aesculus indica* seed saponin hydrolyzate)  
 RN 13844-01-4 HCAPLUS  
 CN Olean-12-ene-3,16,21,22,28-pentol, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

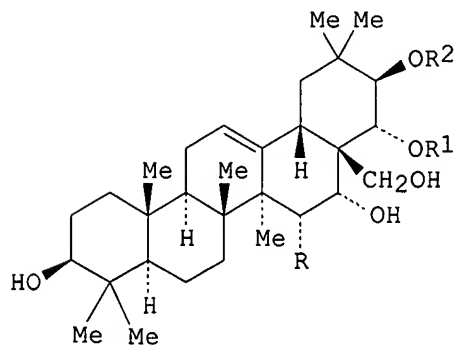


RN 92947-99-4 HCAPLUS  
 CN Olean-12-ene-3,16,21,22,28-pentol, 21,22-bis[(2Z)-2-methyl-2-butenate], (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
 Double bond geometry as shown.



L64 ANSWER 24 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1987:9256 HCAPLUS  
 DN 106:9256  
 TI Antitumor agents. 82. Cytotoxic sapogenols from *Aesculus hippocastanum*  
 AU Konoshima, Takao; Lee, Kuo Hsiung  
 CS Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27514, USA  
 SO Journal of Natural Products (1986), 49(4), 650-6  
 CODEN: JNPRDF; ISSN: 0163-3864  
 DT Journal  
 LA English  
 GI

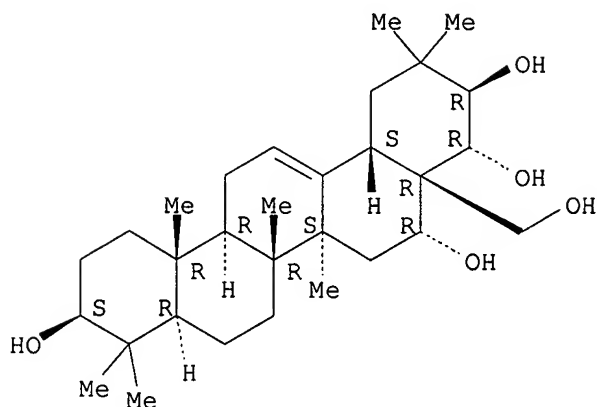


I, R=OH, R<sup>1</sup> and R<sup>2</sup>=  
 angeloyl or tigloyl  
 or vice versa  
 II, R=R<sup>1</sup>=H, R<sup>2</sup>=angeloyl

AB Two cytotoxic sapogenols, the new hippocaesculin (I) [105661-18-5] and the known barringtonenol-C-21-angelate (II) [20089-98-9], were isolated from the acid hydrolysis product of BuOH exts. of fruits of *A. hippocastanum*. The structure of I was determined by hydrolysis, acetylation, acetone formation and proton and <sup>13</sup>C-NMR and high resolution mass spectral studies. The ED<sub>50</sub> of hippocaesculin in KB cell culture was 3.6 µg/mL.  
 IT 13844-01-4P, Barringtonenol-C  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and conversion to acetate or acetone)  
 RN 13844-01-4 HCAPLUS  
 CN Olean-12-ene-3,16,21,22,28-pentol, (3β,16α,21β,22α)-

(9CI) (CA INDEX NAME)

Absolute stereochemistry.



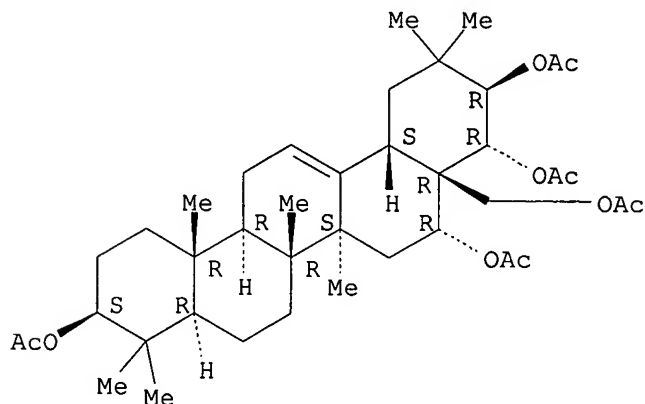
IT 14694-67-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 14694-67-8 HCAPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, pentaacetate,  
(3β,16α,21β,22α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 25 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1986:218842 HCAPLUS

DN 104:218842

TI Positive inotropic action of saponins on isolated atrial and papillary  
muscles from the guinea pigAU Enomoto, Yoshikazu; Ito, Katsuaki; Kawagoe, Yasushi; Morio, Yasunori;  
Yamasaki, Yasundo

CS Fac. Agric., Univ. Miyazaki, Miyazaki, 889-21, Japan

SO British Journal of Pharmacology (1986), 88(1), 259-67

CODEN: BJPCBM; ISSN: 0007-1188

DT Journal

LA English

AB The effects of several saponins of animal and plant origin on the contractile activity of atrial and papillary muscles of the guinea-pig were tested. In a concentration of  $1 + 10^{-5}$  M, holothurin-A (HLA) [38-26-6], holothurin-B [11052-32-7], echinoside-A [75410-53-6], echinoside-B [75410-52-5] and sakuraso-saponin (Saku) [59527-84-3] exhibited pos. inotropic and chronotropic actions whereas desacyl-jego-saponin [53962-19-9] and ginsenoside-Rd [52705-93-8] did not. Saponins having a pos. inotropic action caused hemolysis of rabbit erythrocytes whereas those without inotropic action did not cause hemolysis. The pos. inotropic action of saponins was not affected by practolol, chlorpheniramine, cimetidine, and indomethacin. Verapamil ( $10^{-6}$  M) inhibited the inotropic actions due to HL-A and isoprenaline ( $10^{-8}$  M) to the same extent but had a small effect on those due to ouabain ( $10^{-7}$  M). In high  $K^+$  (30 mM  $K^+$ ) medium where the action potential and the contraction were depressed, HL-A, Saku, and isoprenaline restored the action potential and the contraction of the slow response type whereas ouabain failed to do so. In normal medium HL-A and Saku reduced the resting membrane potential by 15-20 mV. Apparently, modification of the Ca channel is involved in the pos. inotropic action of saponins.

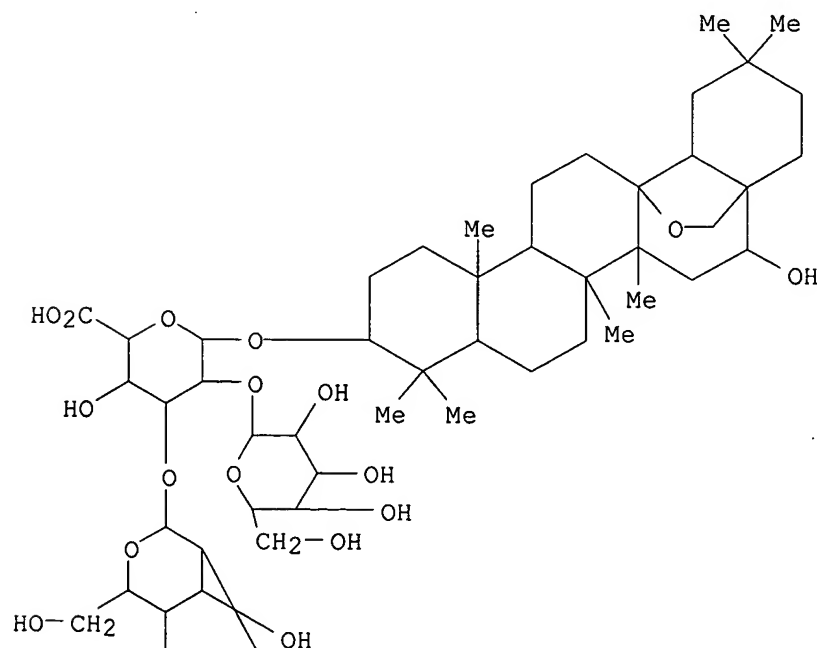
IT 59527-84-3

RL: BIOL (Biological study)  
(heart inotropic action of, mechanism of)

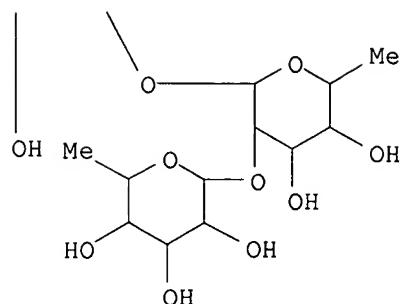
RN 59527-84-3 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, (3 $\beta$ ,16 $\alpha$ )-13,28-epoxy-16-hydroxyoleanan-3-yl O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O-6-deoxy- $\alpha$ -L-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- (9CI) (CA INDEX NAME)

PAGE 1-A

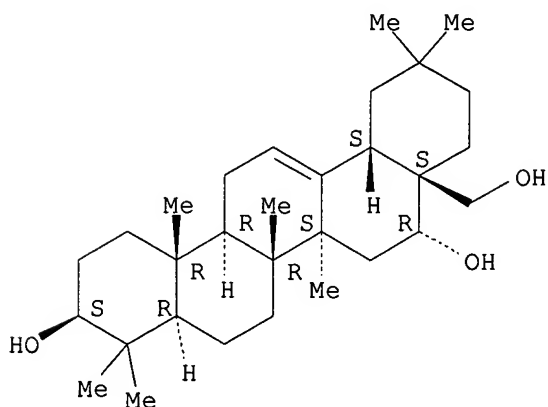


PAGE 2-A



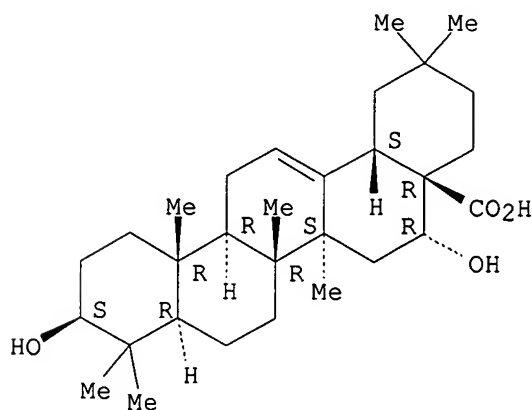
L64 ANSWER 26 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1984:588023 HCAPLUS  
 DN 101:188023  
 TI Chemical composition and contraceptive activity of *Androsace septentrionalis* L  
 AU Mats, M. N.; Korkhov, V. V.; Krasnov, E. A.; Pirozhkova, N. M.  
 CS Inst. Akush. Ginekol., Leningrad, USSR  
 SO Rastitel'nye Resursy (1984), 20(3), 403-8  
 CODEN: RRESA8; ISSN: 0033-9946  
 DT Journal  
 LA Russian  
 AB In aerial parts of *A. septentrionalis* collected during flowering 15 triterpene glycosides, whose aglycons consisted of oleanolic acid and primulagenin, and >15 phenolic compds., among which quercetin, kaempherol, rutin, and caffeic acid were identified, were found. A preparation containing the total triterpene glycosides showed a contraceptive activity similar to that of ethynyl estradiol; the toxicity of the composition was low.  
 IT 465-95-2D, glycosides  
 RL: BIOL (Biological study)  
 (aglycon, from *Androsace septentrionalis*)  
 RN 465-95-2 HCAPLUS  
 CN Olean-12-ene-3,16,28-triol, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 27 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1984:460195 HCAPLUS  
 DN 101:60195  
 TI High-performance liquid chromatography of oleanane-type triterpenes  
 AU Burnouf-Radosevich, Mirjana; Delfel, Norman E.  
 CS North. Reg. Res. Cent., Dep. Agric., Peoria, IL, 61604, USA  
 SO Journal of Chromatography (1984), 292(2), 403-9  
 CODEN: JOCRAM; ISSN: 0021-9673  
 DT Journal  
 LA English  
 AB Seven oleanane-type triterpenes and sitosterol [83-46-5], which may be present together in natural mixts., were successfully resolved by normal phase high-performance liquid chromatog. on a silica gel column. A rapid isocratic separation was achieved using a ternary solvent system of hexane-iso-PrOH-MeOH (96:3.5:0.5). Derivatization was not required for compds. that were detected by UV absorption at 210 nm. This method, applied to qual. and quant. anal. of triterpenes extracted from seeds and callus tissue culture of *Chenopodium quinoa*, was efficient, highly reproducible and sensitive.  
 IT 510-30-5  
 RL: ANT (Analyte); ANST (Analytical study)  
 (determination of, in *Chenopodium quinoa* by high-performance liquid chromatog.)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 28 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1984:451757 HCAPLUS  
 DN 101:51757  
 TI Natural products from the Vietnamese plants. 11. Constituents from the barks of *Aralia chinensis* (Araliaceae)  
 AU Lischewski, M.; Viet Nam, V.; Phiet, H. V.; Schmidt, J.; Adam, G.  
 CS Inst. Biochem. Pflanzen, Akad. Wiss. DDR, Halle/Saale, DDR-4010, Ger. Dem. Rep.  
 SO Pharmazie (1984), 39(4), 276-7  
 CODEN: PHARAT; ISSN: 0031-7144  
 DT Journal  
 LA German  
 AB Oleanolic acid, echinocystic acid, and hederagin were isolated from the

bark of *A. chinensis* in addition to sitosterol, stigmasterol, campesterol, and esculetin di-Me ether.

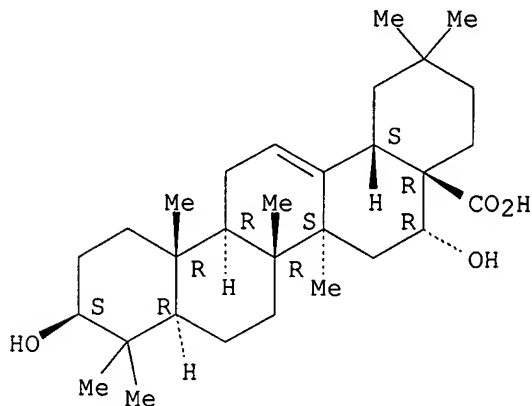
IT 510-30-5

RL: BOC (Biological occurrence); BSU (Biological study, unclassified);  
BIOL (Biological study); OCCU (Occurrence)  
(of *Aralia chinensis* bark)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 29 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1983:221879 HCAPLUS

DN 98:221879

TI Determination and schematization of the relative strength for stronger solvents in liquid-solid chromatography by using triterpenoid sapogenins as solutes

AU Hara, Shoji; Kunihiro, Kazuo; Yamaguchi, Hiroyuki

CS Tokyo Coll. Pharm., Hachioji, 192-03, Japan

SO Yakugaku Zasshi (1983), 103(2), 231-5

CODEN: YKKZAJ; ISSN: 0031-6903

DT Journal

LA Japanese

AB To optimize a solvent system systematically for liquid-solid chromatog. separation, the strength indexes of stronger solvents such as Et<sub>2</sub>O [60-29-7], EtOAc [141-78-6], Me<sub>2</sub>CO [67-64-1], THF [109-99-9], dioxan [123-91-1] and 2-propanol [67-63-0] were determined on the basis of a linear relationship between the logarithm of the capacity ratios and the logarithm of the solvent composition in binary systems containing n-hexane [110-54-3] as diluent.

A new procedure for the graphic schematization of the relative strength and equiellutropic composition of stronger solvents is elaborated. The exptl. results obtained with triterpenoid sapogenins were compared with the L. R. Snyder's (1968) solvent strength parameter and R. Neher's (1964) calcn. for predicting the equiellutropic solvent composition and the differences among 3 strength parameters are discussed.

IT 53227-91-1

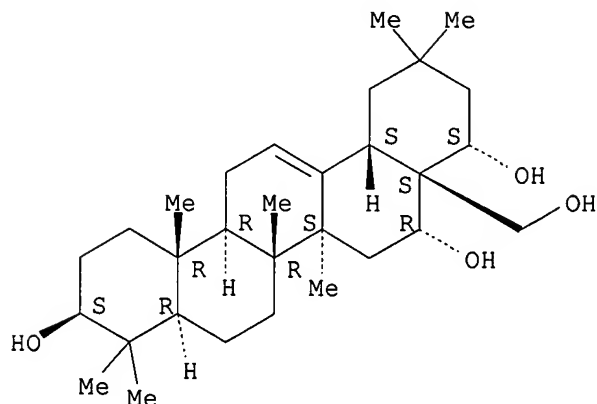
RL: ANST (Analytical study)

(capacity ratio of, in binary solvent systems for liquid-solid chromatog.)

RN 53227-91-1 HCAPLUS

CN Olean-12-ene-3,16,22,28-tetrol, (3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ )- (9CI) (CA  
INDEX NAME)

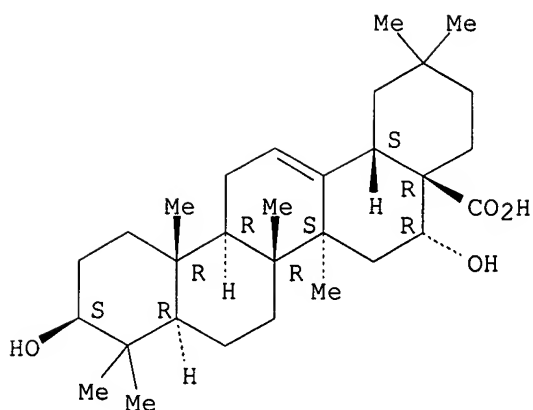
Absolute stereochemistry.



L64 ANSWER 30 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
AN 1980:64626 HCAPLUS  
DN 92:64626  
TI Steroid and triterpenoid saponins as spermicidal agents  
AU Banerji, R.; Srivastava, A. K.; Misra, G.; Nigam, S. K.; Singh, S.; Nigam, S. C.; Saxena, R. C.  
CS Dep. Bot., Gorakhpur Univ., Gorakhpur, India  
SO Indian Drugs (1979), 17(1), 6-8  
CODEN: INDRBA; ISSN: 0019-462X  
DT Journal  
LA English  
AB Saponins extracted from the variety of Indian plants have spermicidal activity at 0.004-0.125%. An acacic acid saponin from *Acacia concinna* bark and an oleanolic acid saponin and proceric acid saponin mixture from *Albizzia procera* seed were most active.  
IT 510-30-5D, saponin  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (isolation and spermicidal activity of)  
RN 510-30-5 HCAPLUS  
CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
INDEX NAME)

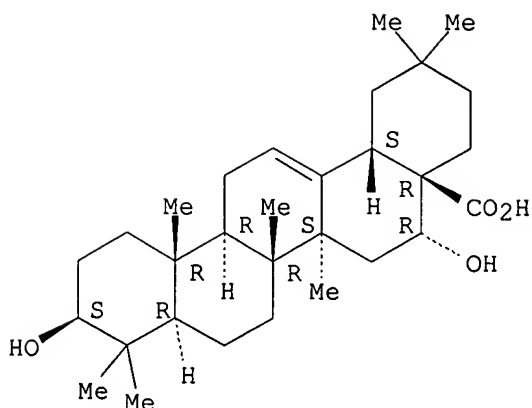
Absolute stereochemistry. Rotation (+).



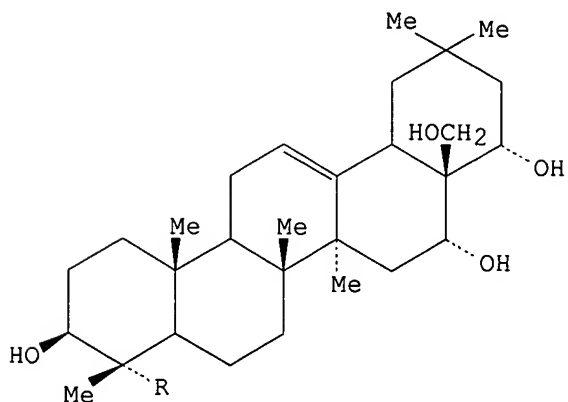


L64 ANSWER 31 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1980:28458 HCAPLUS  
 DN 92:28458  
 TI Study on "Chu-Suk". VI. Prosapogenin in pods of *Gleditschia officinalis*  
 AU Lee, Eun Ock; Yu, Chae Seun  
 CS Coll. Pharm., Sookmyung Women's Univ., Seoul, S. Korea  
 SO Saengyak Hakhoechi (1979), 9(2), 93-7  
 CODEN: SYHJAM; ISSN: 0253-3073  
 DT Journal  
 LA Korean  
 AB From the crude saponin obtained from the pods of *Gleditschia officinalis* 7 spots were identified by thin layer chromatog. and gleditschia B was present in the highest amount Ten kinds of prosapogenins were identified from the partial hydrolyzates of crude saponin. Prosapogenin E contained oleanolic acid [508-02-1] as a sapogenin and prosapogenin F contained echinocystic acid [510-30-5] as the sapogenin. Hydrolysis of crude saponin yielded glucose and rhamnose and the same sugars were also identified from the mixture of prosapogenin E and F.  
 IT 510-30-5  
 RL: BIOL (Biological study)  
 (from *Gleditschia officinalis* prosapogenins)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 32 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1979:427215 HCAPLUS  
 DN 91:27215  
 TI Isolation of sapogenin structures from the roots of *Lysimachia mauritiana*  
 Lam  
 AU Usmanghani, K.  
 CS Fac. Pharm. Sci., Osaka Univ., Osaka, Japan  
 SO Pakistan Journal of Scientific and Industrial Research (1977),  
 20(6), 393-5  
 CODEN: PSIRAA; ISSN: 0030-9885  
 DT Journal  
 LA English  
 GI



I, R=Me  
 II, R=CH<sub>2</sub>OH

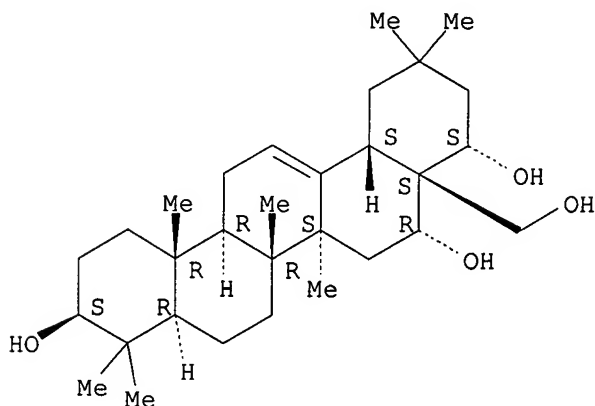
AB A crude saponin fraction of *L. mauritiana* root extract was hydrolyzed with  
 ethanolic HCl. Thin-layer chromatog. of the resultant sapogenin mixture  
 showed 6 triterpenoids. Camelliagenin A (I; R = Me) [53227-91-1  
 ] and camelliagenin C (II; R = CH<sub>2</sub>OH) [14440-27-8] were identified as the  
 new compds. in the sapogenin fraction.  
 IT 53227-91-1  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified);  
 BIOL (Biological study); OCCU (Occurrence)

(of *Lysimachia mauritiana*)

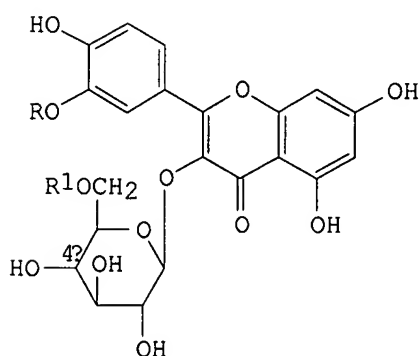
RN 53227-91-1 HCAPLUS

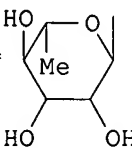
CN Olean-12-ene-3,16,22,28-tetrol, (3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ )- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 33 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1979:76462 HCAPLUS  
 DN 90:76462  
 TI Studies on the constituents of *Bupleurum rotundifolium* L. I  
 AU Inoue, Osamu; Ogihara, Yukio  
 CS Fac. Pharm. Sci., Nagoya City Univ., Nagoya, Japan  
 SO Shoyakugaku Zasshi (1978), 32(2), 100-3  
 CODEN: SHZAAY; ISSN: 0037-4377  
 DT Journal  
 LA Japanese  
 GI



I, R=H, R<sup>1</sup>= , 4'-OH

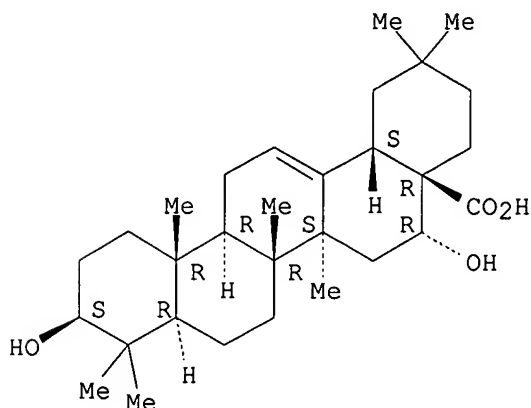
II, R=R<sup>1</sup>=H, 4'-OH

III, R=Me, R<sup>1</sup>=H, 4'-OH

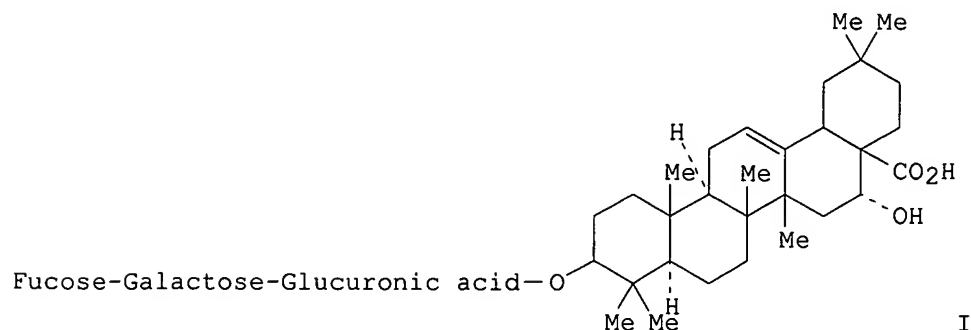
AB Rutin (I) [153-18-4], isoquercitrin (II) [21637-25-2] and cacticin (III) [6743-92-6] were extracted from leaves and stems of *B. rotundifolium*, and phytosterol, oleanolic acid [508-02-1] and echinocystic acid [510-30-5] from stems of the medicinal plant. The components were separated by thin-layer chromatog. or droplet countercurrent chromatog. and identified by spectrophotometric and chemical methods.

IT 510-30-5  
 RL: PROC (Process)  
 (isolation of, from *Bupleurum rotundifolium*)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 34 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1978:424706 HCAPLUS  
 DN 89:24706  
 TI Constitution of scheffleroside - a spermicidal saponin from *Schefflera capitata*  
 AU Jain, G. K.; Sarin, J. P. S.; Khanna, N. M.  
 CS Cent. Drug. Res. Inst., Lucknow, India  
 SO Indian Journal of Chemistry, Section B: Organic Chemistry Including  
 Medicinal Chemistry (1977), 15B(12), 1139-41  
 CODEN: IJSBDB; ISSN: 0376-4699  
 DT Journal  
 LA English  
 GI



AB A new saponin named as scheffleroside was isolated from *S. capitata* and on acid hydrolysis gave D-(+)-fucose (1 mol), D-(+)-galactose (1 mol), D-(+)-glucuronic acid (1 mol), and echinocystic acid (1 mol). Structure I

has been tentatively assigned to scheffleroside.

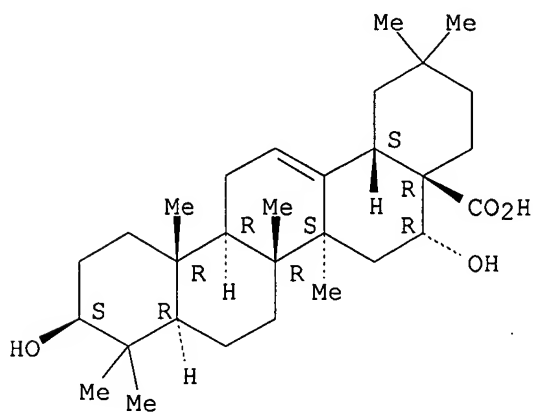
IT **510-30-5**

RL: RCT (Reactant); RACT (Reactant or reagent)  
(constituent, of scheffleroside)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 35 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1978:11956 HCAPLUS

DN 88:11956

TI A new method for quantitative determination of primulic acid in Primula species

AU Szilagyi, I.; Kernoczy, Zs.

CS Inst. Med. Plant Res., Budakalasz, Hung.

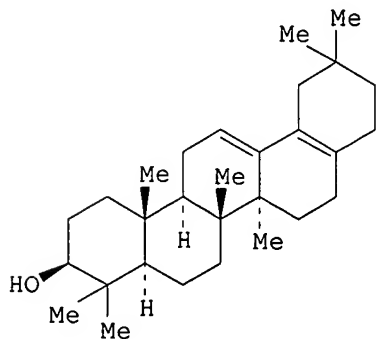
SO Planta Medica (1977), 31(2), 103-8

CODEN: PLMEAA; ISSN: 0032-0943

DT Journal

LA German

GI



AB Total primulic acid and primulagenin A and primulagenin B were quant. determined in Primula species by the formation of a diene chromophore (I) through methanolysis with HCl followed by extraction into heptane. The

extinction values at 243 nm were directly and linearly related to the concentration of the test solution. I was identified as aegiceradienol. The sensitivity of the method was 10 µg/mL, with standard derivation ±5%. Using this method, *P. veris* was found to contain more total primulic acid as well as more primulagenin A and B than *P. vulgaris*.

IT **465-95-2**

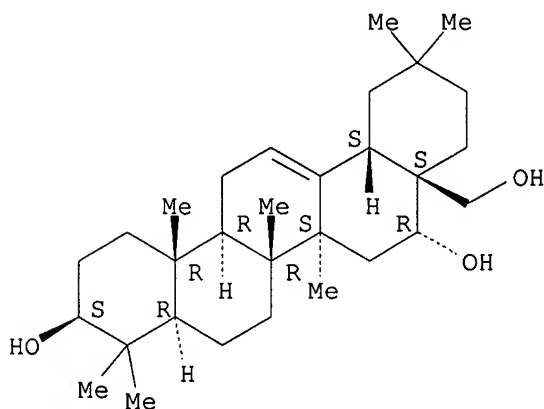
RL: ANST (Analytical study)

(isomers of, determination of, in *Primula* species, colorimetric)

RN 465-95-2 HCAPLUS

CN Olean-12-ene-3,16,28-triol, (3β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 36 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1977:96051 HCAPLUS

DN 86:96051

TI Gas-liquid chromatography of steroid and triterpene sapogenins using water vapor as the carrier gas

AU Krokhmalyuk, V. V.

CS USSR

SO Issled. Obl. Farm. Khim. (1975), 151-6. Editor(s): Prokopishin, V. I. Publisher: "Shtiintsa", Kishinev, USSR.

CODEN: 34OHAQ

DT Conference

LA Russian

AB Gas-liquid chromatog. of 11 triterpene sapogenins, 4 Me esters of triterpene sapogenins, and 12 steroidal sapogenins using water vapor (220°) as the mobile phase is described. This method is faster than that using He as the carrier gas, does not require preconversion of the sapogenins and steroids into volatile derivs., and results in longer retention times. However, the flame-ionization detector is less sensitive to differences in the compds. being analyzed when water vapor is used as the carrier gas. Possible use of this method in analyzing the composition of pharmaceutical preps. is discussed.

IT **510-30-5**

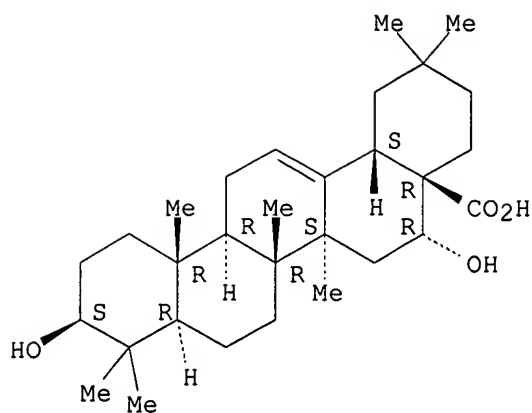
RL: ANT (Analyte); ANST (Analytical study)

(determination of, by gas-liquid chromatog., water vapor as carrier gas in)

RN 510-30-5 HCAPLUS

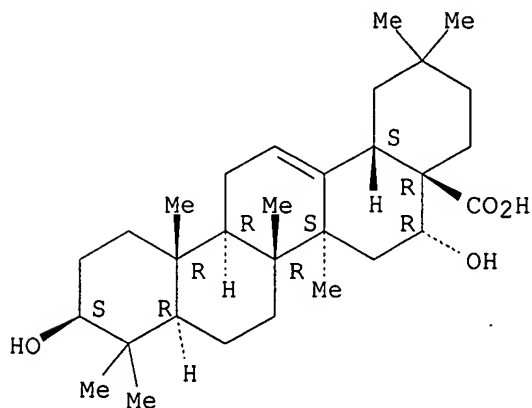
CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



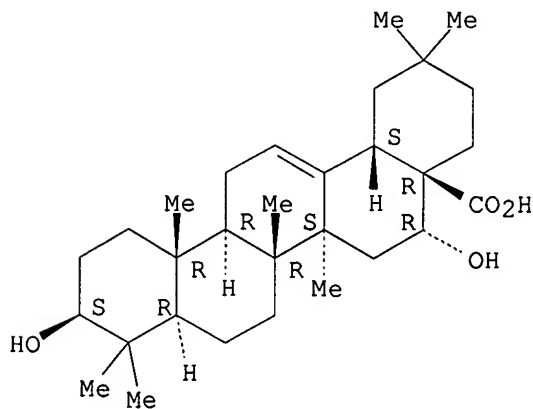
L64 ANSWER 37 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1976:102371 HCAPLUS  
 DN 84:102371  
 TI Sterols and triterpenoids from *Codonopsis lanceolata*  
 AU Yang, Han Suk; Choi, Sung Sook; Han, Byung Hoon; Kang, Sam Sik; Woo, Won Sick  
 CS Natl. Prod. Res. Inst., Seoul Natl. Univ., Seoul, S. Korea  
 SO Yakhak Hoechi (1975), 19(3), 209-12  
 CODEN: YAHOA3; ISSN: 0513-4234  
 DT Journal  
 LA English  
 AB The roots of *Codonopsis lanceolata* contained  $\alpha$ -spinasterol,  $\Delta^7$ -stigmastenol, oleanolic acid, echinocystic acid, and an unidentified triterpene acid, m.p. 249°.  
 IT 510-30-5  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified);  
 BIOL (Biological study); OCCU (Occurrence)  
 (of *Codonopsis lanceolata*)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 38 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1975:64390 HCAPLUS  
 DN 82:64390  
 TI Chemical study of Piptadeniastrum africanum. I. Aglycone glycoside  
 AU Comeau, Louis C.; Druet, Danielle; Braun, Jean Antonine  
 CS Lab. Chim Org. Biol., Fac. Sci. Abidjan, Abidjan, Cote d'Ivoire  
 SO Bulletin de la Societe Chimique de France (1974), 11, Pt. 2,  
 2643-6  
 CODEN: BSCFAS; ISSN: 0037-8968  
 DT Journal  
 LA French  
 AB The defatted, dried bark of P. africanum yielded about half its weight to  
 EtOH extraction Evaporation of the extract, solution in MeOH and  
 precipitation with Me<sub>2</sub>CO, gave a  
 red, hygroscopic powder (I). Addition of aqueous Na<sub>2</sub>CO<sub>3</sub> to a MeOH solution of  
 I  
 precipitated the phenolics as a dark blue solid, red in aqueous solution The  
 phenolic-free MeOH solution, evaporated to dryness, hydrolyzed 3 hr at  
 100° with Kiliani's mixture, gave a precipitate of highly colored aglycones,  
 which were acetylated and then fractionated by column chromatog. on silica  
 to give 2 major aglycones, B and C, as well as a minor 1, A. Aglycones B  
 and C were identified, resp., as oleanolic acid [508-02-1] and  
 echinocystic acid [510-30-5].  
 IT 510-30-5  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified);  
 BIOL (Biological study); OCCU (Occurrence)  
 (of Piptadeniastrum africanum)  
 RN 510-30-5 HCAPLUS  
 CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 39 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1970:53412 HCAPLUS  
 DN 72:53412  
 TI Structural specificity of saponin hemolysis. I. Triterpene saponins and  
 aglycons  
 AU Schloesser, Eckart; Wulff, G.  
 CS Inst. Pflanzenkr., Univ. Bonn, Bonn, Fed. Rep. Ger.  
 SO Zeitschrift fuer Naturforschung, Teil B: Anorganische Chemie, Organische



Chemie, Biochemie, Biophysik, Biologie (1969), 24(10), 1284-90  
 CODEN: ZENBAX; ISSN: 0044-3174

DT Journal

LA German

AB A large number of saponins and aglycons of the triterpene type were tested for hemolytic activity using cattle erythrocytes, in vitro. For optimum hemolytic activity, the aglycons required a polar grouping in ring A and a moderately polar grouping in ring D or E. Compds. containing a 16 $\alpha$ -OH or 16 keto group together with a 3 $\beta$ -OH group had the highest hemolytic potential. The distance of 10.5 Å between 3 $\beta$ -OH and 16 $\alpha$ -OH was of special significance. Acylation of either OH resulted in loss of activity. For saponins with a sugar chain on 3 $\beta$ -OH, the distance between the strong and the weak polar group was less critical. The composition of the sugar chain had a certain influence on the hemolytic power. A polar grouping in ring D and (or) E, such as a sugar chain or a number of OH groups, induced inactivation.

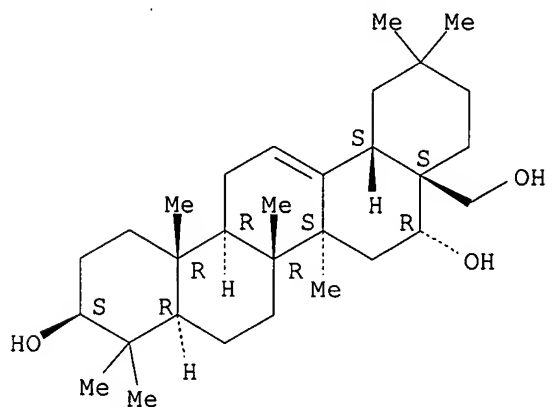
IT 465-95-2 510-30-5 13844-01-4  
 53227-91-1

RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological study, unclassified); BIOL (Biological study)  
 (hemolytic activity of)

RN 465-95-2 HCAPLUS

CN Olean-12-ene-3,16,28-triol, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

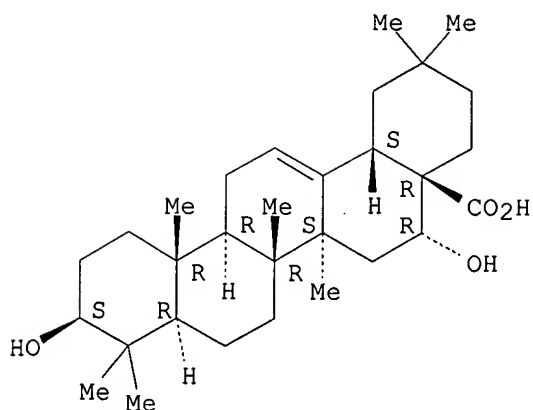
Absolute stereochemistry.



RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

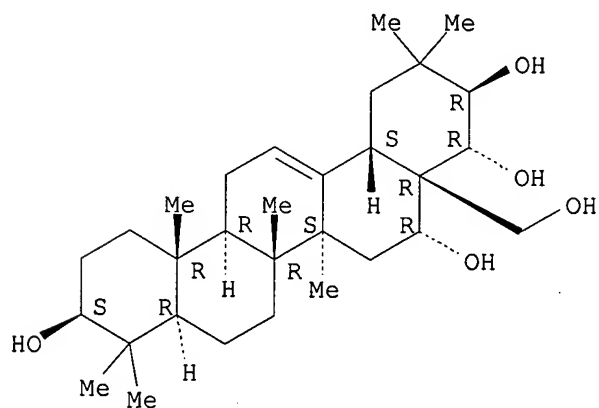
Absolute stereochemistry. Rotation (+).



RN 13844-01-4 HCAPLUS

CN Olean-12-ene-3,16,21,22,28-pentol, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-(9CI) (CA INDEX NAME)

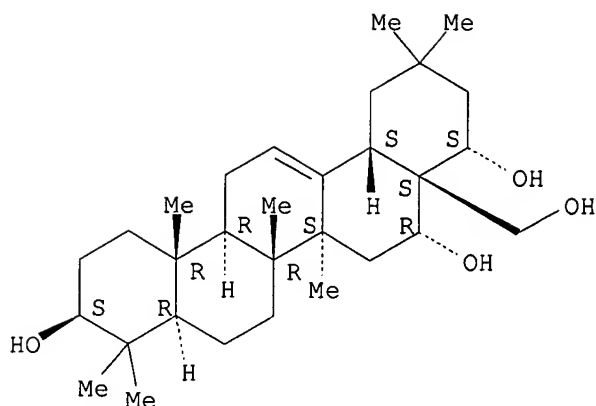
Absolute stereochemistry.



RN 53227-91-1 HCAPLUS

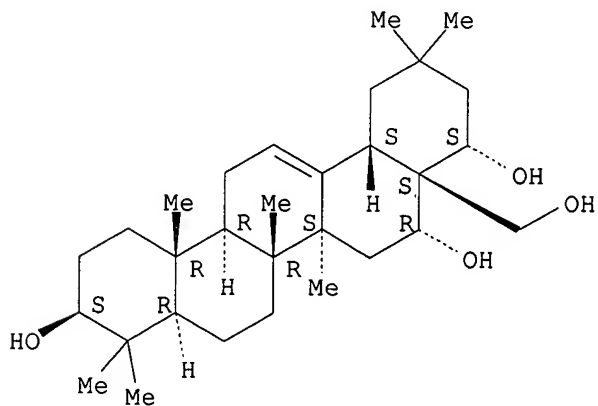
CN Olean-12-ene-3,16,22,28-tetrol, (3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ )-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 40 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1966:59186 HCAPLUS  
 DN 64:59186  
 OREF 64:11028e-f  
 TI Thin-layer chromatography of tetra-and pentacyclic triterpenes and related compounds  
 AU Murakami, Takao; Itokawa, Hideji; Uzuki, Fumiko; Sawada, Naotoshi  
 CS Coll. Sci., Tokyo  
 SO Chemical & Pharmaceutical Bulletin (1965), 13(11), 1346-52  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA English  
 AB Thin-layer chromatographs were run on 50 tetra-and pentacyclic triterpenes, sterols, and some unknown compds. by using silica gel G and alumina G. Tables are presented giving Rf values, solvent systems, and spray reagents for detection. Correlations are drawn between Rf values and structures for the triterpenoids.  
 IT **53227-91-1**, Camellia sapogenol I  
 (chromatography of)  
 RN 53227-91-1 HCAPLUS  
 CN Olean-12-ene-3,16,22,28-tetrol, (3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 41 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1966:59185 HCAPLUS

DN 64:59185

OREF 64:11028b-e

TI Gas chromatographic separations of steroids and related substances

AU Horning, E. C.; VandenHeuvel, W. J. A.

CS Univ. Coll. of Med., Houston, TX

SO Rivista Italiana delle Sostanze Grasse (1965), 42(9), 418-29

CODEN: RISGAD; ISSN: 0035-6808

DT Journal

LA Italian

AB With F-60 methyl-p-chlorophenylsiloxane as a nonselective liquid phase for steroid chromatography, a separation in the cholestane series is obtained owing to mol. differences in size or shape. Cholestanyl trifluoroacetate and cholestanyl 3-Me ether are eluted before cholestanol in spite of their higher mol. weight. With QF-1 fluoroalkylsiloxane as a selective liquid phase, the separation is related to specific functional groups such as keto groups. With  $\beta$ -cyanoethylsiloxanes and polyesters, a selective retention is obtained for alcs., ketones, and C-C unsatn. With a poly(vinylpyrrolidinone)-polyester coating an increased selective retention is obtained for alcs. and ketones. The preparation of acetates, trifluoroacetates, and trimethylsilyl ethers makes possible the separation of epimers on a SE-30 methylsiloxane column. Conversion of ketones into N,N-dimethylhydrazones allows the separation of the 16-keto from the 17-keto isomer of androstan-3 $\beta$ -ol to be made. Cholestanol can be separated from epicholestanol on a QF-1 and not on a SE-30 column. Difficult sepns. can be solved by increasing the plate number efficiency of the column, a technique rarely used for steroids. Means for detecting substances of intermediate sensitivity are the gas d. scale and the "cross-section" ionization chamber. The detectors are based on the H flame and Ar ionization and can be coupled with selective detectors based on radioactivity, electron capture, halogens, and mass spectrometry. Relations between retention time and the "steroid number" concept were plotted on a log graph. The relative retention time of a steroid is practically unaffected by small changes of flow intensity and by the quantity of the liquid phase; it is influenced by temperature. The "steroid nos." are independent of temperature at 20-30°. They were related to the number of Me units.

IT 465-95-2, Olean-12-ene-3 $\beta$ ,16 $\alpha$ ,28-triol

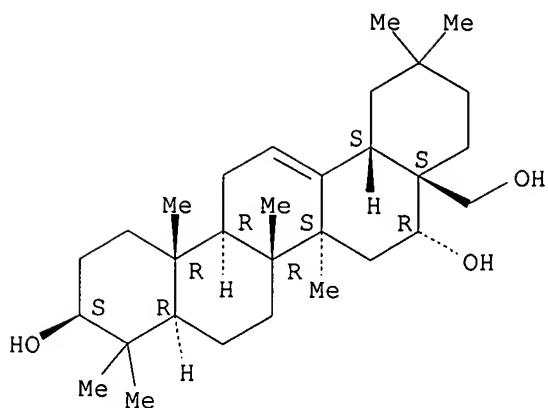
53227-91-1, Camellia sapogenol I

(chromatography of)

RN 465-95-2 HCAPLUS

CN Olean-12-ene-3,16,28-triol, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

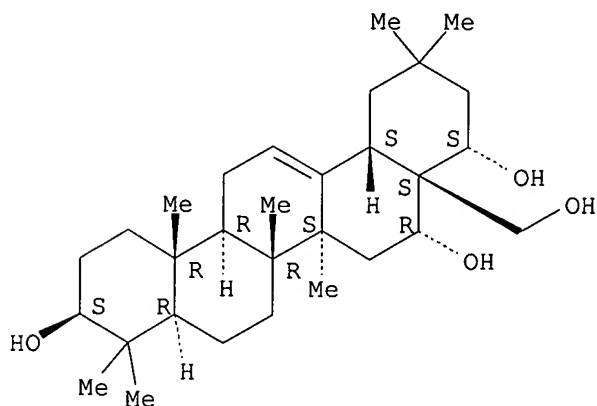
Absolute stereochemistry.



RN 53227-91-1 HCAPLUS

CN Olean-12-ene-3,16,22,28-tetrol, (3 $\beta$ ,16 $\alpha$ ,22 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 42 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1962:38760 HCAPLUS

DN 56:38760

OREF 56:7423e-g

TI Triterpenoids. XI. New triterpenoid sapogenins from the fruits of *Barringtonia acutangula*

AU Barua, A. K.; Maiti, P. C.; Chakraborti, Sachindra K.

CS Bose Inst., Calcutta

SO Journal of Pharmaceutical Sciences (1961), 50, 937-40

CODEN: JPMSAE; ISSN: 0022-3549

DT Journal

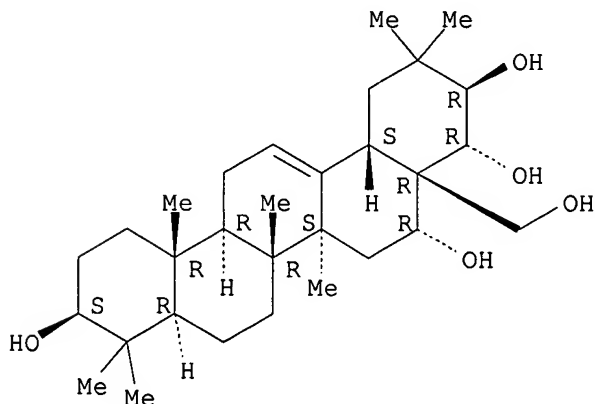
LA Unavailable

AB cf. CA 54, 4666b.-Three new triterpenoid sapogenols were isolated from *B. acutangula* and named, resp., barringtogenol B, C<sub>30</sub>H<sub>50</sub>O<sub>6</sub>, m. 249°; barringtogenol C, C<sub>30</sub>H<sub>50</sub>O<sub>5</sub>, m. 315-20° (decomposition), [ $\alpha$ ]<sub>D</sub><sup>28</sup> +38.8° (dioxane); and barringtogenol D, C<sub>30</sub>H<sub>48</sub>-50O<sub>4</sub>, m. 233-4°, [ $\alpha$ ]<sub>D</sub><sup>32</sup> +74° (CHCl<sub>3</sub>). Two tri-terpenoid acid sapogenins, C<sub>31</sub>H<sub>50</sub>O<sub>4</sub> and C<sub>32</sub>H<sub>50</sub>O<sub>6</sub>, were also isolated through their Me

esters and the latter identified as Me barringtogenate.

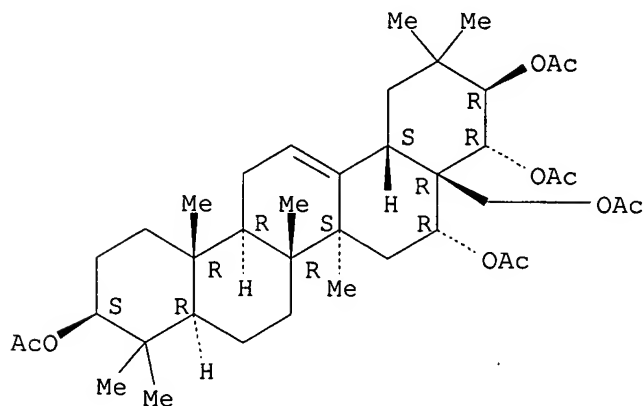
IT **13844-01-4**, Barringtogenol C  
(of *Barringtonia acutangula*)  
RN 13844-01-4 HCAPLUS  
CN Olean-12-ene-3,16,21,22,28-pentol, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **14694-67-8**, Barringtogenol C, pentaacetate  
(preparation of)  
RN 14694-67-8 HCAPLUS  
CN Olean-12-ene-3,16,21,22,28-pentol, pentaacetate,  
(3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 43 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
AN 1962:7896 HCAPLUS  
DN 56:7896  
OREF 56:1528d  
TI Toxic saponin from *Elvira biflora*  
AU de Oliveira, Marilda M.; Andrade, Sylvia O.  
CS Inst. Biol., Sao Paulo, Brazil  
SO *Journal of Pharmaceutical Sciences* (1961), 50, 780-2

CODEN: JPMSAE; ISSN: 0022-3549

DT Journal

LA Unavailable

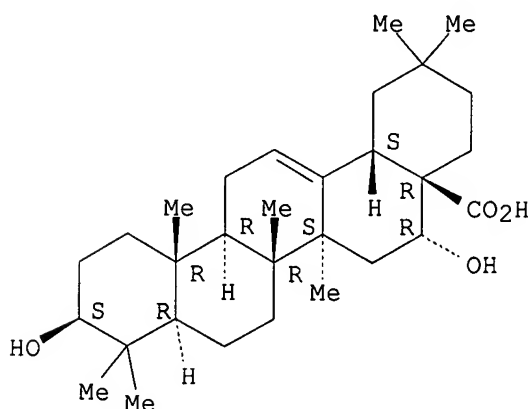
AB A toxic sapogenin was isolated from *E. biflora* which, upon hydrolysis, gave 4 sugars identified as galactose, xylose, arabinose, and rhamnose, and a sapogenin identified as echinocystic acid.

IT 510-30-5, Olean-12-en-28-oic acid, 3 $\beta$ ,16 $\alpha$ -dihydroxy-  
(from *Elvira biflora*)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 44 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1961:29837 HCAPLUS

DN 55:29837

OREF 55:5873e-f

TI Triterpenoid compounds in plant materials. III. Paper chromatography of the triterpene alcohols

AU Pasich, Bozena

CS Med. Acad., Poznan, Pol.

SO Dissertationes Pharmaceuticae (1960), 12, 201-10

CODEN: DIPHAH; ISSN: 0301-1615

DT Journal

LA English

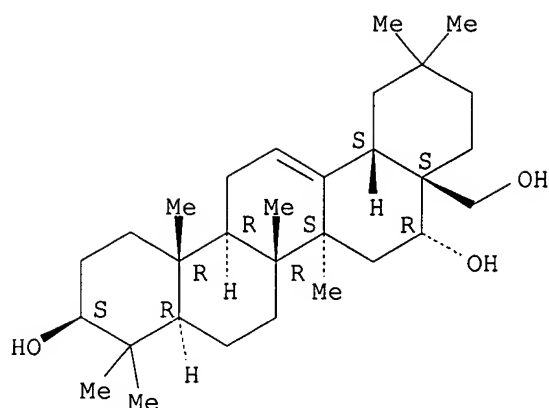
AB cf. CA 53, 13512i. Benzene and its homologs are good mobile phases for separating triterpenols (I) on filter paper impregnated with Al(OH)<sub>3</sub>. As the degree of saturation of the solvent increases, separation of I with different numbers of OH groups decreases. Lupeol and  $\alpha$ -lactuceryl are the most, and escigenin and primulogenin are the least mobile. The lupane group gives yellow to brown, the oleanolic group pink to violet, and escigenin green-blue colors in 6 sp. color reactions.

IT 465-95-2, Primulagenin A  
(paper chromatography of)

RN 465-95-2 HCAPLUS

CN Olean-12-ene-3,16,28-triol, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

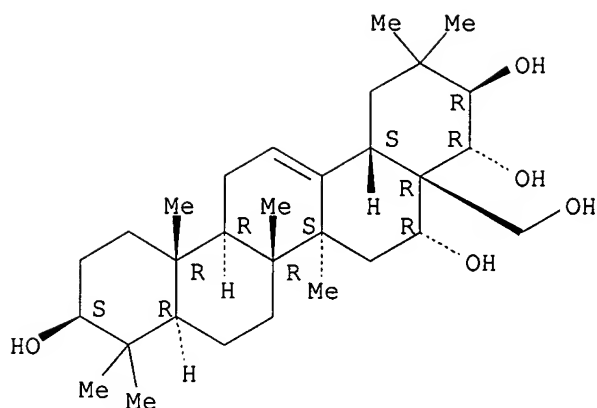
Absolute stereochemistry.



L64 ANSWER 45 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1960:113360 HCAPLUS  
 DN 54:113360  
 OREF 54:21638c-e  
 TI The separation of triterpenoids and their related compounds by  
 reversed-phase chromatography  
 AU Hashimoto, Yohei; Chatani, Junichi  
 CS Kobe Women's Coll. Pharm.  
 SO Chemical & Pharmaceutical Bulletin (1959), 7, 127-8  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA Unavailable  
 AB The silicone-treated paper used in reversed-phase chromatography was  
 prepared as previously described (CA 51, 13320b). The R<sub>f</sub> values of 16  
 triterpenoids and 8 saponins were determined in the 8 solvents, 99% MeOH, 1:1  
 EtOH-H<sub>2</sub>O, EtOAc, 1:1 PrOH-toluene, 5:1 AcOH-H<sub>2</sub>O, 10:1 toluene-28% NH<sub>4</sub>OH  
 (supernatant layer), 10:6:1 C<sub>6</sub>H<sub>6</sub>-MeOH-H<sub>2</sub>O, and 5:1 EtOAc-10% MeOH. The  
 color reactions were also reported obtained by immersing the finished  
 chromatograms in 10% SbCl<sub>3</sub> or 20% SbCl<sub>5</sub> solution and drying. The use of  
 SbCl<sub>5</sub> was preferable, since it produced the selective coloration without  
 the 2-min. heating necessary when SbCl<sub>3</sub> was used.  
 IT **13844-01-4**, Jegosapogenol  
 (chromatographic separation of)  
 RN 13844-01-4 HCAPLUS  
 CN Olean-12-ene-3,16,21,22,28-pentol, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.





L64 ANSWER 46 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1957:14547 HCAPLUS

DN 51:14547

OREF 51:3092e-g

TI Detection of triterpenoid glycosides on paper chromatograms

AU Belic, I.

CS Univ. Ljubljana, Yugoslavia

SO Nature (1956), 178, 538

DT Journal

LA Unavailable

AB Triterpenoid glycosides (I) can be detected on paper chromatograms by the application of the Lieberman-Burchard reaction. Alc. exts. (70% volume/volume) of *Echinocystis lobata* seeds were chromatographed on Whatman Number 1 filter paper with a BuOH/AcOH system. The dried paper chromatogram was placed on a glass plate and sprayed with a mixture of equal vols. of CHCl<sub>3</sub> and Ac<sub>2</sub>O. A thin layer of concentrated H<sub>2</sub>SO<sub>4</sub> was spread on a glass plate and the treated filter paper strip was laid on it. Addnl. H<sub>2</sub>SO<sub>4</sub> was smeared on the top of the strip with a glass rod. After a few min., I appeared as red spots. The starting line, the solvent front, and the spots were marked on the glass plate for the R<sub>f</sub> determination. The H<sub>2</sub>SO<sub>4</sub> destroyed

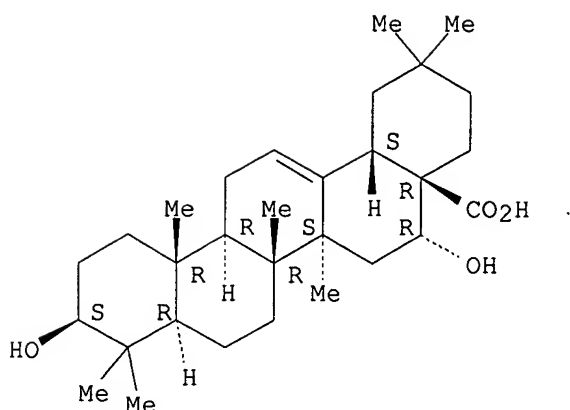
the paper, making precise measurements of the distances traveled by I impossible. Under ultraviolet light the spots showed orange fluorescence; by this method 1  $\gamma$  of echinocystic acid glycoside (II) could be detected. The R<sub>f</sub> values of II were 0.36 in a descending BuOH/AcOH system and 0.08 in an ascending system of EtOAc with 0.08 addition of 1.5% AcOH and 2% MeOH, saturated with water until a slight cloudiness appeared.

IT 510-30-5, Echinocystic acid  
(glycoside, determination of)

RN 510-30-5 HCAPLUS

CN Olean-12-en-28-oic acid, 3,16-dihydroxy-, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (+).



L64 ANSWER 47 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1944:1208 HCAPLUS

DN 38:1208

OREF 38:214h-i,215a

TI Saponins from primula (primula acids)

AU Margot, A.; Reichstein, T.

SO Pharmaceutica Acta Helvetiae (1942), 17, 113-40

CODEN: PAHEAA; ISSN: 0031-6865

DT Journal

LA Unavailable

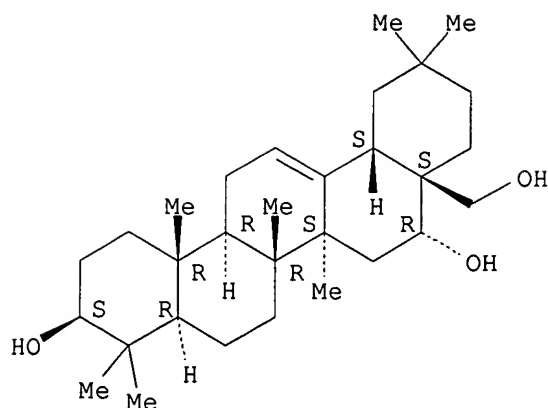
AB From the roots of *Primula officinalis* (I) and *P. elatior* (II) saponins were isolated as crystalline Na salts. I yields 3 times as much of these salts as II. The salts show similar properties and are mixts. Both yield the same saponin (primula acid), which is obtained pure as a crystalline Me ester. The saponin from I produced only 20% of the ester and that of II about 60%. Both drugs yield secondary saponins, which can be distinguished by the sugar and aglucone components. Acid hydrolysis gives a sugar-free decomposition product genin A, C<sub>30</sub>H<sub>50</sub>O<sub>3</sub>, m. 248-50°, which might be identical with elatigenin of Ruhkopf and Mohs from elatioric acid and is apparently a pentacyclic unsatd. trihydric alc. (diacetate, m. 220-1°; triacetate, m. 153-6°). Genin B, C<sub>30</sub>H<sub>48</sub>O<sub>3</sub>, is also obtained (diacetate, m. 216-18°). The oxidation products of the diacetyl derivative are studied. In the sugar portions, d-galactose, d-glucose and uronic acid are identified.

IT 465-95-2, Genin A  
(preparation of)

RN 465-95-2 HCAPLUS

CN Olean-12-ene-3,16,28-triol, (3 $\beta$ ,16 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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<http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf> <<<

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L67 ANSWER 1 OF 1 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN  
AN 2000-482596 [42] WPIX

DNC C2005-224184  
 TI Isolation of new and known **triterpene saponins** from **Myrsinaceae** genus plants, useful in treatment of leishmaniasis, comprises alcohol extraction, followed by purification.  
 DC B05 C03  
 IN DE KIMPE, N G M; GERMONPREZ, N A G; MAES, L J R M; NINH, T N; VAN PUYVELDE, L E M; VAN TRI, M; DE KIMPE, G; GERMONPREZ, A; MAES, J; NGOC, N T; VAN PUYVELDE, E; NGOC NINH, T; DE, K  
 PA (JANC) JANSSEN PHARM NV; (NASC-N) NAT CENT SCI & TECHNOLOGY; (UYGE-N) UNIV GENT  
 CYC 91  
 PI WO 2000038700 A1 20000706 (200042)\* EN 28 A61K035-78  
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 OA PT SD SE SL SZ TZ UG ZW  
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 FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS  
 LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL  
 TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
 AU 2000021002 A 20000731 (200050) A61K035-78  
 BR 9916422 A 20011002 (200167) A61K035-78  
 EP 1140127 A1 20011010 (200167) EN A61K035-78  
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 KR 2001080471 A 20010822 (200213) C07H017-08  
 CN 1331601 A 20020116 (200230) A61K035-78  
 MX 2001006405 A1 20010901 (200239) A61K035-78  
 JP 2003521463 W 20030715 (200347) 37 C07H015-256  
 AU 768712 B 20040108 (200412) A61K035-78  
 EP 1140127 B1 20040616 (200439) EN A61K035-78  
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 DE 69918166 E 20040722 (200450) A61K035-78  
 ES 2224739 T3 20050301 (200519) A61K035-78  
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 IN 2001000556 P3 20050304 (200547) EN A61K035-78  
 MX 229725 B 20050805 (200607) A61K035-78  
 ADT WO 2000038700 A1 WO 1999-EP10177 19991215; AU 2000021002 A AU 2000-21002 19991215; BR 9916422 A BR 1999-16422 19991215, WO 1999-EP10177 19991215; EP 1140127 A1 EP 1999-965511 19991215, WO 1999-EP10177 19991215; KR 2001080471 A KR 2001-706207 20010516; CN 1331601 A CN 1999-814876 19991215; MX 2001006405 A1 MX 2001-6405 20010621; JP 2003521463 W WO 1999-EP10177 19991215, JP 2000-590652 19991215; AU 768712 B AU 2000-21002 19991215; EP 1140127 B1 EP 1999-965511 19991215, WO 1999-EP10177 19991215; US 2004138151 A1 Div ex WO 1999-EP10177 19991215, Div ex US 2001-868755 20010912, US 2004-752057 20040106; DE 69918166 E DE 1999-618166 19991215, EP 1999-965511 19991215, WO 1999-EP10177 19991215; ES 2224739 T3 EP 1999-965511 19991215; US 6872713 B1 WO 1999-EP10177 19991215, US 2001-868755 20010912; DE 69918166 T2 DE 1999-618166 19991215, EP 1999-965511 19991215, WO 1999-EP10177 19991215; IN 2001000556 P3 WO 1999-EP10177 19991215, IN 2001-MN556 20010515; MX 229725 B WO 1999-EP10177 19991215, MX 2001-6405 20010621  
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PRAI EP 1998-204409 19981222

IC ICM A61K035-78; C07H015-24; C07H015-256; C07H017-08

ICS A61K031-704; A61P033-02; C07C069-00; C07C069-60

AB WO 200038700 A UPAB: 20051125

NOVELTY - Isolation of new and known **triterpene saponins** from **Myrsinaceae** genus plants by extracting with alcohol, removing apolar fraction by extraction with apolar solvent and purifying **saponins** in alcohol extract.

DETAILED DESCRIPTION - Isolation of **triterpene saponins** from plants of the genus **Myrsinaceae** comprises:

(a) extracting the dried plant parts with an alcohol and concentrating the extract;

(b) removing the apolar fraction by liquid-liquid extraction with an apolar solvent; and

(c) purifying the **saponins** in the alcohol extract by liquid-liquid extraction, filtration and chromatography.

INDEPENDENT CLAIMS are included for:

(1) a **triterpene saponin** obtained by the above process;

(2) **triterpene saponins** of formula (I);

(3) use of **triterpenoid saponins** of formula (II) or their salts or stereoisomers for preparation of compositions for treatment of leishmaniasis.

R2 = OCO-C6H5 or OCO-C(CH3)=CHCH2;

R3 = (E)- or (Z)- OCOCH=CH-C6H5;

R4 = H or COCH3;

R1a = H, CO-1-5C alkyl, CO-2-5C alkenyl (optionally substituted by phenyl), monosaccharide or oligosaccharide;

R2a = H, OH, OCO-1-5C alkyl, OCO-2-5C alkenyl (optionally substituted by phenyl) or OCO-C6H5;

R3a = H, OH, OCO-1-5C alkyl, OCO-1-5C alkenyl (optionally substituted by phenyl) or OCO-C6H5;

R4a = H, 1-6C alkyl, CO-1-6C alkyl, CO-2-5C alkenyl (optionally substituted by phenyl) or CO-C6H5;

R5a = CH3, CH2OH, CH2OCH3, CH2OC(=O)CH3, CHO or COOH; or

R2a + R5a = C(O)O;

R6a, R7a = H; or

R6a + R7a = a bond, CH2O, CH(OR13)O or C(O)O;

R13 = H, 1-6C alkyl or CO-1-5C alkyl;

R8a, R8b = CH3, CH2OH, CH2OCH3, CH2OCO-1-5C alkyl, CHO, CH(OCH3)2, CH=NOH or COOH; or

R3a + R8b = C(O)O; or

R5a + R8b = CH2O-CHOH;

R9a = CH3, CH2OH, CH2OCH3, CH2OC(O)-1-5C alkyl, CHO or COOH;

R10a = CH3, CH2OH, CH2OCH3, CH2O-CO-1-5C alkyl, CHO or COOH;

R11a = H, OH or OCO-1-5C alkyl; or

R10a + R11a = CH2O;

R12a = CH3, CH2OH, CH2OCH3, CH2O-C(O)CH3, CHO, CH=NOH or COOH.

ACTIVITY - Antiprotozoal. A mixture of saponins from *Maesa balansae* had EC50 values for visceral administration of 0.05 micro g/ml against *Leishmania donovani* and *Leishmania infantum*.

MECHANISM OF ACTION - None given.

USE - The terpenoid saponins are useful in the treatment of protozoal infections, especially leishmaniasis.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: B04-A07E; B06-A03; B11-C09; B14-A03; C04-A07E; C06-A03; C11-C09; C14-A03

TECH UPTX: 20051125

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Process: The alcohol is MeOH, EtOH, iPrOH or BuOH (each optionally mixed with water). The **saponins** in the alcohol extract are purified by:

- (a) extracting the aqueous fraction with butanol saturated with water;
- (b) evaporating the organic layer to dryness;
- (c) washing the residue with a ketone; and
- (d) filtering off the crude **saponin** mixture.

The **saponins** especially are isolated from **Maesa**

**balansae** and the chromatography is straight-phase liquid chromatography on silica gel or reversed phase liquid chromatography with a gradient eluant system using:

- (A) 0.5 % ammonium acetate in water;
- (B) methanol and
- (C) acetonitrile

where at  $t = 0$ , (A:B:C) = (60:20:20) and at  $t = \text{end}$ , (A:B:C) = (0:50:50).

ABEX

UPTX: 20051125

ADMINISTRATION - Administration is oral, parenteral, topical, by inhalation or rectal. Dosage is 0.01-50 (especially 0.1-7) mg/kg.

EXAMPLE - Air-dried powdered leaves (3 kg) of **Maesa**

**balansae** were extracted with chloroform to remove apolar material and then with methanol:water (9:1). The alcoholic extract was evaporated under reduced pressure and the residue was partitioned between n-butanol (saturated with water) and water. The organic layer was evaporated to dryness and the residue was washed with acetone and filtered. The acetone insoluble part containing **saponins** (10 g) was purified by reversed-phase high pressure liquid chromatography with a gradient eluant system using:

- (A) 0.5 % ammonium acetate in water;
- (B) methanol; and
- (C) acetonitrile;

at a flow rate of 80 ml/minute with UV-detection at 235 nm. Using the gradient eluant system ( $t = 0$  min) A:B:C (60:20:20) to ( $t = 50$  min) A:B:C (0:50:50) a pure **saponin** mixture (5 g) was obtained comprising six compounds. Isolation of each of the six **saponins** was performed on the same column under the same conditions to give (in order of elution):

- (1) compound 1; molecular weight (MW) = 1532;  $\lambda_{\text{damax}}$  = 223.3 nm; further purified using isocratic solvent system A:B:C (33:64:03) ; yield 230 mg;
- (2) compound 2: MW = 1510,  $\lambda_{\text{damax}}$  = 209.2 nm; gradient elution system: ( $t = 0$  min) A:B:C (42:29:29) to ( $t = \text{end}$ ) A:B:C (24:38:38) ; yield 110 mg;
- (3) compound 3: MW = 1532,  $\lambda_{\text{damax}}$  = 222.1 nm; isocratic solvent system: A:B:C (40:30:30) ; yield 1000 mg;
- (4) compound 4: MW= 1510,  $\lambda_{\text{damax}}$  = 202.2nm; isocratic solvent system: A:B:C (59:00:41); yield 1000 mg;
- (5) compound 5: MW = 1574,  $\lambda_{\text{damax}}$  = 203.4 nm; isocratic solvent system: A:B:C (32:34:34) ; yield 220 mg; and
- (6) compound 6: MW = 1552,  $\lambda_{\text{damax}}$  = 216.3 nm ; isocratic solvent system: A:B:C (32:34:34) with recycling (4 times) ; yield 230 mg.

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AN 2000:456899 HCAPLUS

DN 133:71516

TI Isolation of triterpene saponins from Myrsinaceae for treating leishmaniases

IN Maes, Louis Jules Roger Marie; Germonprez, Nils Albert Gilbert; Van Puyvelde, Luc Emiel Mathilde; Van Tri, Mai; Ngoc Ninh, Tran; De Kimpe, Norbert G. M.

PA Janssen Pharmaceutica N.V., Belg.

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO.   | DATE         |
|------|---|------|----------|-------------------|--------------|
| PI   | WO 2000038700   | A1   | 20000706 | WO 1999-EP10177   | 19991215 <-- |
|      | W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW |      |          |                   |              |
|      | RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                   |              |
|      | BR 9916422  | A    | 20011002 | BR 1999-16422     | 19991215 <-- |
|      | EP 1140127  | A1   | 20011010 | EP 1999-965511    | 19991215 <-- |
|      | EP 1140127  | B1   | 20040616 |                   |              |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO   |      |          |                   |              |
|      | TR 200101824  | T2   | 20011121 | TR 2001-200101824 | 19991215 <-- |
|      | JP 2003521463   | T2   | 20030715 | JP 2000-590652    | 19991215 <-- |
|      | AU 768712   | B2   | 20040108 | AU 2000-21002     | 19991215 <-- |
|      | AT 269097   | E    | 20040715 | AT 1999-965511    | 19991215 <-- |
|      | ES 2224739  | T3   | 20050301 | ES 1999-965511    | 19991215 <-- |
|      | US 6872713  | B1   | 20050329 | US 2001-868755    | 20010912     |
|      | US 2004138151   | A1   | 20040715 | US 2004-752057    | 20040106 <-- |
| PRAI | EP 1998-204409  | A    | 19981222 | <--               |              |
|      | WO 1999-EP10177   | W    | 19991215 |                   |              |
|      | US 2001-868755  | A3   | 20010912 |                   |              |
| OS   | MARPAT 133:71516  |      |          |                   |              |

- AB Triterpene saponins (I), a stereoisomeric form, or a pharmaceutically acceptable addition salt thereof are claimed where R1 = H, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, (CO)C2-5 alkenyl substituted with Ph, a monosaccharide group, or an oligosaccharide group; R2, R3 = H, OH, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, O(CO)C6H5, or (CO)C2-5 alkenyl substituted with Ph; R4 = H, C1-6 alkyl, (CO)C1-5 alkyl, (CO)C2-5 alkenyl, O(CO)C6H5, or (CO)C2-5 alkenyl substituted with Ph; R5 = CH3, CH2OH, CH2OCH3, CH2OC(O)CH3, CHO, COOH; or R5 and R2 form a divalent radical of formula C(O)O; R6 and R7 together are H, a bond; or R5 and R6 form a divalent radical of formula CH2O, CH(OR13)O, or C(O)O where R13 = H, C1-6 alkyl or (CO)C1-5 alkyl; R8 $\alpha$ , R8 $\beta$  = CH3, CH2OH, CH2OCH3, CH2OC(O)C1-5 alkyl, CHO, CH(CH3)2, CHNOH, COOH; or R8 $\beta$  and R3 together = C(O)O; or R8 $\beta$  and R5 together = CH2OCHOH; R9, R10 = CH3, CH2OH, CH2OCH3, CH2OC(O)C1-5 alkyl, CHO, COOH; R11 = H, OH, OC(O)C1-5 alkyl; or R10 and R11 together = CH2O; and R12 = CH3, CH2OH, CH2OCH3, CH2OC(O)CH3, CHO, CHNOH, COOH. Members of I are isolated from plants of the Myrsinaceae family and are useful for decreasing the infectiousness of and reducing the mortality associated with protozoan parasites of the genus Leishmania which are responsible for a group of conditions known as leishmaniasis.
- IT 67-56-1, Methanol, uses 75-05-8, Acetonitrile, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (extraction solvent; isolation of triterpene saponins from Myrsinaceae for treating leishmaniasis)
- IT 278792-43-1P 278792-44-2P 278792-45-3P  
 278793-59-2P 278793-60-5P 278793-61-6P  
 RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (isolation of triterpene saponins from Myrsinaceae for treating leishmaniasis)

## RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Apers, S                   | 1998          | 18           | 737         | JOURNAL OF PHARMACEU     | HCAPLUS            |
| Jean, B                    | 1996          | 41           | 269         | PHYTOCHEMISTRY           |                    |
| Sindambiwe, J              | 1998          | 61           | 585         | JOURNAL OF NATURAL P     | HCAPLUS            |

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FILE 'REGISTRY' ENTERED AT 13:20:50 ON 16 AUG 2006  
 ACT QAZI752/A

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 L3 STR  
 L4 2708 SEA FILE=REGISTRY SUB=L2 SSS FUL L3  
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 L5 69 S E3,E13-E15  
 E GERMONPREZ/AU  
 L6 8 S E4,E5  
 E VAN PUYVELDE/AU  
 L7 50 S E12-E14



L8 442 E DE KIMPE N/AU  
 S E3-E6  
 E DEKIMPE N/AU  
 E NGOC/AU  
 E NGOC N/AU  
 L9 4 S E4,E5,E14  
 E NINH/AU  
 L10 1 S E20  
 E TRAN N/AU  
 L11 43 S E3,E44  
 L12 3353 S JANSSEN?/PA,CS  
 L13 1272 S L4 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)  
 L14 1 S L5-L12 AND L13  
 E MYRSINA/CT  
 E E4+ALL  
 L15 14 S E7  
 L16 1047 S E7+NT  
 L17 63 S E157+NT  
 L18 8 S E158  
 L19 10 S (M OR MAESA?) () BALANS?  
 E MYRSINAC?  
 L20 307 S E1-E28  
 L21 57 S L13 AND L15-L20  
 E TRITERP/CT  
 L22 10764 S E8,E43,E82-E90  
 L23 828 S E104  
 E E8+ALL  
 L24 11571 S E10+OLD  
 E E8+ALL  
 L25 25874 S E8+OLD  
 L26 8782 S E120,E136  
 L27 59 S L15-L20 AND L22-L26  
 L28 109 S L15-L20 AND ?TRITERP?  
 L29 74 S L27,L28 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)  
 L30 25 S L29 AND (MAES? OR MYRSIN?)  
 L31 7 S L30 AND MYRSIN?/CT  
 L32 8 S L30 AND MAES?/CT  
 L33 14 S L31,L32  
 L34 11 S L30 NOT L33  
 L35 3 S (104:165407 OR 89:56465 OR 44:10525)/DN  
 L36 3 S L35 AND L15-L33  
 L37 16 S L33,L36  
 L38 49 S L29 NOT L30-L37  
 L39 11 S L27 NOT L29-L38  
 E LEISHMAN/CT  
 L40 6636 S E4+OLD,NT  
 L41 108 S E81+OLD,NT OR E8+OLD,NT OR E88  
 E LEISHM  
 L42 8963 S E2 OR LEISHM?  
 L43 2 S L13 AND L40-L42  
 L44 17 S L37,L14,L43  
 L45 17 S L44 AND L5-L44  
 SEL HIT RN  
  
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 L46 41 S E1-E41  
 SEL RN L46 7 8 10 19-21 25 28-31  
 L47 30 S L46 NOT E42-E52

FILE 'HCAPLUS' ENTERED AT 13:49:24 ON 16 AUG 2006

L48 347 S L47  
L49 299 S L48 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)  
L50 1 S L49 AND L5-L12  
L51 40 S L48 AND L15-L20  
L52 9 S L48 AND L40-L42  
SEL DN AN L45  
L53 17 S E53-E103  
L54 9 S L53 AND L49-L52  
L55 11 S L35,L36,L54  
L56 19 S L47 (L) (BAC OR THU OR PAC OR PKT OR DMA OR COS)/RL AND L49  
L57 52 S L49 AND (PHARMACEUT? OR PHARMACOL? OR PATHOL? OR COSMETIC?)/S  
L58 3 S L49 AND (BIOMOL? OR IMMUN?)/SC,SX  
L59 3 S L55 AND L56-L58  
L60 11 S L55,L59  
L61 53 S L56-L58 NOT L60  
L62 6 S L61 AND P/DT  
L63 17 S L60,L62  
L64 47 S L61 NOT L63

FILE 'REGISTRY' ENTERED AT 13:54:35 ON 16 AUG 2006

FILE 'HCAPLUS' ENTERED AT 13:54:47 ON 16 AUG 2006

FILE 'WPIX' ENTERED AT 13:56:42 ON 16 AUG 2006

E L19  
L65 1 S L19  
E MYRSIN?  
L66 24 S E2-E12  
L67 1 S L65,L66 AND (?TERPEN? OR ?TRITERP? OR ?SAPON?)

FILE 'WPIX' ENTERED AT 13:58:04 ON 16 AUG 2006

FILE 'REGISTRY' ENTERED AT 13:58:24 ON 16 AUG 2006

L68 1 S METHANOL/CN  
L69 1 S ACETONITRILE/CN  
L70 1 S AMMONIUM ACETATE/CN

FILE 'HCAPLUS' ENTERED AT 13:59:55 ON 16 AUG 2006

L71 167 S L13 AND (L68 OR MEOH OR METHANOL OR METHYLALCOHOL OR METHYL A  
L72 1 S L71 AND (L69 OR ACETONITRILE OR ACETO NITRILE)  
L73 0 S L71 AND (L70 OR AMMONIUM ACETATE)  
L74 0 S L13 AND (L70 OR AMMONIUM ACETATE)

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